

A correlation of  
**Population Connection  
Activities**

from

**People and the Planet:  
*Lessons for a Sustainable Future***

to

**California State Board of Education  
Content Standards**

**Organized by:**

- 1. Population Connection Activity*
- 2. Subject*
- 3. Grade*
- 4. Standard*

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## ***The Balance of Nature (Reading)***

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### **English Language Development**

#### ***Grades 6-8***

Early Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development  
Apply knowledge of academic and social vocabulary to achieve independent reading.

Early Intermediate ELD Level: Reading: Comprehension  
Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

Early Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and orally identify the main ideas and details of informational materials, literary text, and text in content areas by using simple sentences.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and use detailed sentences to explain orally the main ideas and details of informational text, literary text, and text in content areas.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary text, and text in content areas.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text  
Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

### **Language Arts**

#### ***Grade 6***

##### **Reading**

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

##### **Word Recognition**

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

### **Science**

#### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

- c. Students know populations of organisms can be categorized by the functions they serve in an ecosystem.
  - e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.
6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:
- a. Students know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process.

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# Cougar Hunt

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use content-related vocabulary in discussions and reading.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple one-step directions for classroom activities.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Understand and follow some multiple-step directions for classroom-related activities.

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 3*

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

#### Comprehension

1.3. Respond to questions with appropriate elaboration.

### *Grade 4*

#### Written and Oral English Language Conventions

1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

#### Sentence Structure

1.1. Use simple and compound sentences in writing and speaking.

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

## Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

## Organization and Delivery of Oral Communication

- 1.6 Use traditional structures for conveying information (e.g., cause and effect, similarity and difference, and posing and answering a question).

## **Grade 5**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.1. Ask questions that seek information not already discussed.

## **Grade 6**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

## **Science**

### Grade 1

2. Life Sciences. Plants and animals meet their needs in different ways. As a basis for understanding this concept:

- b. Students know both plants and animals need water, animals need food, and plants need light.

- c. Students know animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- b. Record observations and data with pictures, numbers, or written statements.

### Grade 3

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:

- b. Students know examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

- d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations.

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Use numerical data in describing and comparing objects, events, and measurements.

- e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### Grade 4

3. Life Sciences. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:

b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.

#### Grade 5

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

#### Grade 6: Focus on Earth Sciences

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

b. Students know matter is transferred over time from one organism to others in the food web and between organisms and the physical environment.

d. Students know different kinds of organisms may play similar ecological roles in similar biomes.

Science

e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

#### Grade 7: Focus on Life Sciences

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.

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# Earth: The Apple of Our Eye (Intermediate/Secondary)

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 8*

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

### *Grade 11*

11.2 Students analyze the relationship among the rise of industrialization, large-scale rural-to-urban migration, and massive immigration from Southern and Eastern Europe.

2. Describe the changing landscape, including the growth of cities linked by industry and trade, and the development of cities divided according to race, ethnicity, and class.

11.5 Students analyze the major political, social, economic, technological, and cultural developments of the 1920s.

7. Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

11.8 Students analyze the economic boom and social transformation of post-World War II America.

7. Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

### *Grade 12*

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.

### *Grades 9 - 12*

### Chronological and Spatial Thinking

4. Students relate current events to the physical and human characteristics of places and regions.

### Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

## Mathematics

### **Grade 6**

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 7**

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## Science

### **Grade 6: Focus on Earth Sciences**

6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:

b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.

### **Grades 9-12: Investigation and Experimentation**

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Eco-Ethics

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in and initiate more extended social conversations with peers and adults on unfamiliar topics by asking and answering questions and restating and soliciting information.

Respond to messages by asking questions, challenging statements, or offering examples that affirm the message.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

### *Grades 9-12*

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in and initiate more extended social conversations with peers and adults on unfamiliar topics by asking and answering questions and restating and soliciting information.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## **History and Social Science**

### ***Grade 12***

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.

## **Language Arts**

### ***Grade 6***

Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Word Recognition

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

Organization and Focus

1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## **Science**

### ***Grade 6: Focus on Earth Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Recognize whether evidence is consistent with a proposed explanation.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Educating Wanjiku

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## English Language Development

### *Grades 6-8*

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development  
Apply knowledge of academic and social vocabulary to achieve independent reading.

Beginning ELD Level: Reading: Comprehension  
Read simple text and orally respond to factual comprehension questions by using keywords or phrases.  
  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Orally identify, using key words or phrases, the main ideas and some details of familiar texts.

Early Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and orally identify the main ideas and details of informational materials, literary text, and text in content areas by using simple sentences.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and use detailed sentences to explain orally the main ideas and details of informational text, literary text, and text in content areas.

Early Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text and Literary Criticism  
Describe orally in simple sentences a character in a brief literary text by identifying the thoughts and actions of the character.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text  
Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Analysis and Evaluation of Oral and Media Communications and Comprehension  
Respond with simple words or phrases to questions about simple written texts.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Listening and Speaking: Comprehension  
Respond to messages by asking simple questions or by briefly restating the message.

Early Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development

Apply knowledge of academic and social vocabulary to achieve independent reading.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary text, and text in content areas.

Early Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text and Literary Criticism

Describe briefly in simple sentences a character according to what he or she does in a familiar narration, dialogue, or drama.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text

Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

## **History and Social Science**

### ***Grade 10***

10.10 Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America, and China.

1. Understand the challenges in the regions, including their geopolitical, cultural, military, and economic significance and the international relationships in which they are involved.
2. Describe the recent history of the regions, including political divisions and systems, key leaders, religious issues, natural features, resources, and population patterns.

### ***Grade 11***

11.11 Students analyze the major social problems and domestic policy issues in contemporary American society.

3. Describe the changing roles of women in society as reflected in the entry of more women into the labor force and the changing family structure.

## **Language Arts**

### ***Grade 6***

Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Word Recognition

- 1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

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# Everything Is Connected

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Writing: Organization and Focus  
Create simple sentences or phrases with some assistance.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

## History and Social Science

### *Grade 8*

8.12 Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.

5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).

### *Grades 6-8*

Historical Interpretation

2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long- and short-term causal relations.

### *Grade 12*

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.

### *Grades 9 - 12*

Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## **Mathematics**

### ***Grade 7***

Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

## **Science**

### ***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

b. Students know how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Family Perspective

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grades 9 - 12*

Chronological and Spatial Thinking

1. Students compare the present with the past, evaluating the consequences of past events and decisions and determining the lessons that were learned.

2. Students analyze how change happens at different rates at different times; understand that some aspects can change while others remain the same; and understand that change is complicated and affects not only technology and politics but also values and beliefs.

## Mathematics

### *Grade 6*

Statistics, Data Analysis, and Probability

2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:

2.1 Compare different samples of a population with the data from the entire population and identify a situation in which it makes sense to use a sample.

## Science

### *Grades 9-12: Biology/Life Sciences*

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

c. Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.

### *Grades 9-12: Investigation and Experimentation*

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Food for Thought

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 10*

10.3 Students analyze the effects of the Industrial Revolution in England, France, Germany, Japan, and the United States.

3. Describe the growth of population, rural to urban migration, and growth of cities associated with the Industrial Revolution.

10.10 Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America, and China.

1. Understand the challenges in the regions, including their geopolitical, cultural, military, and economic significance and the international relationships in which they are involved.

2. Describe the recent history of the regions, including political divisions and systems, key leaders, religious issues, natural features, resources, and population patterns.

### *Grade 12*

Principles of Economics

12.6 Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond the United States's borders.

3. Understand the changing role of international political borders and territorial sovereignty in a global economy.

### *Grades 9 - 12*

Chronological and Spatial Thinking

4. Students relate current events to the physical and human characteristics of places and regions.

## Language Arts

### *Grade 6*

## Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

## Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

# Mathematics

## *Kindergarten*

### Number Sense

- 1.0 Students understand the relationship between numbers and quantities (I.e. that a set of objects has the same number of objects in different situations regardless of its position or arrangement:

- 1.1 Compare two or more sets of objects (up to ten objects in each group) and identify which set is equal to, more than, or less than the other.

- 1.3 Know that the larger numbers describe sets with more objects in them than the smaller numbers have.

### Mathematical Reasoning

- 1.0 Students make decisions about how to set up a problem:

- 1.2 Use tools and strategies, such as manipulatives or sketches, to model problems.

## *Grade 1*

### Number Sense

- 1.0 Students understand and use numbers up to 100:

- 1.1 Count, read, and write whole numbers to 100.

- 1.2 Compare and order whole numbers to 100 by using the symbols for less than, equal to, or greater than ( $<$ ,  $=$ ,  $>$ ).

- 3.0 Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, and hundreds places:

- 3.1 Make reasonable estimates when comparing larger or smaller numbers.

### Statistics, Data Analysis, and Probability

- 1.0 Students organize, represent, and compare data by category on simple graphs and charts:

- 1.2 Represent and compare data (e.g., largest, smallest, most often, least often) by using pictures, bar graphs, tally charts, and picture graphs.

## *Grade 4*

### Number Sense

- 1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

- 1.1 Read and write whole numbers in the millions.

- 1.2 Order and compare whole numbers and decimals to two decimal places.

- 1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalents of fractions (see Standard 4.0).

## *Grade 5*

## Statistics, Data Analysis, and Probability

1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

1.3 Use fractions and percentages to compare data sets of different sizes.

## Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## Science

### ***Grade 3***

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Use numerical data in describing and comparing objects, events, and measurements.

e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:

b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# For the Common Good

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Demonstrate comprehension of oral presentations and instructions through nonverbal responses (e.g., gestures, pointing, drawing).

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 11*

11.11 Students analyze the major social problems and domestic policy issues in contemporary American society.

5. Trace the impact of, need for, and controversies associated with environmental conservation, expansion of the national park system, and the development of environmental protection laws, with particular attention to the interaction between environmental protection advocates and property rights advocates.

### *Grade 12*

Principles of American Democracy

12.2 Students evaluate and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured.

4. Understand the obligations of civic-mindedness, including voting, being informed on civic issues, volunteering and performing public service, and serving in the military or alternative service.

5. Describe the reciprocity between rights and obligations; that is, why enjoyment of one's rights entails respect for the rights of others.

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.

## Language Arts

### *Grade 6*

Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

## Science

### ***Grade 6: Focus on Earth Sciences***

6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:
- b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.

### ***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:
- e. Students know a vital part of an ecosystem is the stability of its producers and decomposers.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:
- l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
- m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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## ***Global Family Ties (Reading)***

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### **English Language Development**

#### ***Grades 6-8***

Early Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development  
Apply knowledge of academic and social vocabulary to achieve independent reading.

Early Intermediate ELD Level: Reading: Comprehension  
Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

Early Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and orally identify the main ideas and details of informational materials, literary text, and text in content areas by using simple sentences.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and use detailed sentences to explain orally the main ideas and details of informational text, literary text, and text in content areas.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary text, and text in content areas.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text  
Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

### **History and Social Science**

#### ***Grade 8***

8.12 Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.

5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).

#### ***Grades 6-8***

Chronological and Spatial Thinking

3. Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries and to explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

Historical Interpretation

2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long-and short-term causal relations.

## **Language Arts**

### ***Grade 6***

#### Reading

- 1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

#### Word Recognition

- 1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

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# Growing Pains in Texas Hill Country

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Demonstrate comprehension of oral presentations and instructions through nonverbal responses (e.g., gestures, pointing, drawing).

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Restate in simple sentences the main idea of oral presentations in subject-matter content.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Identify the main idea and some supporting details of oral presentations, familiar literature, and key concepts of subject-matter content.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver presentations that use various sources.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Orally identify, using key words or phrases, the main ideas and some details of familiar texts.

Early Intermediate ELD Level: Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Demonstrate comprehension of oral presentations and instructions through nonverbal responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Restate in simple sentences the main idea of oral presentations in subject-matter content.

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.

Listen attentively to stories and information and identify important details and concepts by using both verbal and nonverbal responses.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Identify the main idea and some supporting details of oral presentations, familiar literature, and key concepts of subject-matter content.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Respond to messages by asking questions, challenging statements, or offering examples that affirm the message.

Prepare and deliver brief oral presentations/reports on historical investigations, a problem and solution, or a cause and effect.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Early Intermediate ELD Level: Reading: Vocabulary and Concept Development

Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development

Apply knowledge of academic and social vocabulary to achieve independent reading.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Orally identify the main ideas and some details of familiar literature and informational materials/public documents.

Early Intermediate ELD Level: Reading: Comprehension

Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary text, and text in content areas.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text

Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

Early Intermediate ELD Level: Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.

## **History and Social Science**

### ***Grade 11***

11.11 Students analyze the major social problems and domestic policy issues in contemporary American society.

5. Trace the impact of, need for, and controversies associated with environmental conservation, expansion of the national park system, and the development of environmental protection laws, with particular attention to the interaction between environmental protection advocates and property rights advocates.

7. Explain how the federal, state, and local governments have responded to demographic and social changes such as population shifts to the suburbs, racial concentrations in the cities, Frostbelt-to-Sunbelt migration, international migration, decline of family farms, increases in out-of-wedlock births, and drug abuse.

### ***Grade 12***

Principles of American Democracy

12.7 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments.

5. Explain how public policy is formed, including the setting of the public agenda and implementation of it through regulations and executive orders.

### ***Grades 9 - 12***

Chronological and Spatial Thinking

2. Students analyze how change happens at different rates at different times; understand that some aspects can change while others remain the same; and understand that change is complicated and affects not only technology and politics but also values and beliefs.

4. Students relate current events to the physical and human characteristics of places and regions.

Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

6. Students conduct cost-benefit analyses and apply basic economic indicators to analyze the aggregate economic behavior of the U.S. economy.

## **Language Arts**

### ***Grade 6***

Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Word Recognition

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

2.0 Reading Comprehension (Focus on Informational Materials)

Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose. The selections in Recommended Readings in Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students. In addition, by grade eight, students read one

million words annually on their own, including a good representation of grade level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade six, students continue to make progress toward this goal.

#### Structural Features of Informational Materials

2.1 Identify the structural features of popular media (e.g., newspapers, magazines, online information) and use the features to obtain information.

#### Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

#### Organization and Focus

1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

2.2 Write expository compositions (e.g., description, explanation, comparison and contrast, problem and solution):

- a. State the thesis or purpose.
- b. Explain the situation.
- c. Follow an organizational pattern appropriate to the type of composition.
- d. Offer persuasive evidence to validate arguments and conclusions as needed.

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

#### Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

#### Organization and Delivery of Oral Communication

1.4. Select a focus, an organizational structure, and a point of view, matching the purpose, message, occasion, and vocal modulation to the audience.

1.5. Emphasize salient points to assist the listener in following the main ideas and concepts.

1.6. Support opinions with detailed evidence and with visual or media displays that use appropriate technology.

#### 2.0 Speaking Applications (Genres and Their Characteristics)

Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.2 Deliver informative presentations:

b. Develop the topic with facts, details, examples, and explanations from multiple authoritative sources (e.g., speakers, periodicals, online information).

2.4. Deliver persuasive presentations:

- a. Provide a clear statement of the position.
- b. Include relevant evidence.

- c. Offer a logical sequence of information.
- d. Engage the listener and foster acceptance of the proposition or proposal.

## **Grade 7**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. Students evaluate the content of oral communication.

### Comprehension

- 1.1. Ask probing questions to elicit information, including evidence to support the speaker's claims and conclusions.
- 1.3. Respond to persuasive messages with questions, challenges, or affirmations.

### Organization and Delivery of Oral Communication

- 1.4. Organize information to achieve particular purposes and to appeal to the background and interests of the audience.
- 1.5. Arrange supporting details, reasons, descriptions, and examples effectively and persuasively in relation to the audience.
- 1.6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact, for effective presentations.

### 2.0 Speaking Applications (Genres and Their Characteristics)

Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0. Using the speaking strategies of grade seven outlined in Listening and Speaking Standard 1.0, students:

#### 2.2 Deliver oral summaries of articles and books:

- a. Include the main ideas of the event or article and the most significant details.
- b. Use the student's own words, except for material quoted from sources.
- c. Convey a comprehensive understanding of sources, not just superficial details

#### 2.4. Deliver persuasive presentations:

- a. State a clear position or perspective in support of an argument or proposal.
- b. Describe the points in support of the argument and employ well-articulated evidence.

## **Grade 8**

### Listening and Speaking

- 2.0. Speaking Applications (Genres and Their Characteristics): Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

#### 2.4. Deliver persuasive presentations:

- b. Differentiate fact from opinion and support arguments with detailed evidence, examples, and reasoning.
- c. Anticipate and answer listener concerns and counterarguments effectively through the inclusion and arrangement of details, reasons, examples, and other elements.
- d. Maintain a reasonable tone.

## **Grades 9-10**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students formulate adroit judgments about oral communication. They deliver focused and coherent presentations of their own that convey clear and distinct perspectives and solid reasoning. They use gestures, tone, and vocabulary tailored to the audience and purpose.

### Organization and Delivery of Oral Communication

1.3. Choose logical patterns of organization (e.g., chronological, topical, cause and effect) to inform and to persuade, by soliciting agreement or action, or to unite audiences behind a common belief or cause.

2.0. Speaking Applications (Genres and Their Characteristics): Students deliver polished formal and extemporaneous presentations that combine the traditional rhetorical strategies of narration, exposition, persuasion, and description. Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.5. Deliver persuasive arguments (including evaluation and analysis of problems and solutions and causes and effects):

- a. Structure ideas and arguments in a coherent, logical fashion.
- b. Use rhetorical devices to support assertions (e.g., by appeal to logic through reasoning; by appeal to emotion or ethical belief; by use of personal anecdote, case study, or analogy).
- c. Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.
- d. Anticipate and address the listener's concerns and counterarguments.

## Science

### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

d. Formulate explanations by using logic and evidence.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# The Hunger Banquet

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 12*

Principles of Economics

12.6 Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond the United States's borders.

3. Understand the changing role of international political borders and territorial sovereignty in a global economy.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

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# If Money Won't Buy It

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

### *Grade 5*

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

### *Grade 6*

Number Sense

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

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# In Search of Sustainable Life

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in and initiate more extended social conversations with peers and adults on unfamiliar topics by asking and answering questions and restating and soliciting information.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Writing: Organization and Focus

Create simple sentences or phrases with some assistance.

## Language Arts

### *Grade 6*

Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Word Recognition

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

Organization and Focus

1.1. Choose the form of writing (e.g., personal letter, letter to the editor, review, poem, report, narrative) that best suits the intended purpose.

1.2 Create multiple-paragraph expository compositions:

a. Engage the interest of the reader and state a clear purpose.

c. Conclude with a detailed summary linked to the purpose of the composition.

1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. Student writing demonstrates a command of

standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

2.5 Write persuasive compositions:

- a. State a clear position on a proposition or proposal.
- b. Support the position with organized and relevant evidence.
- c. Anticipate and address reader concerns and counterarguments.

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

#### Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

#### Organization and Delivery of Oral Communication

1.4. Select a focus, an organizational structure, and a point of view, matching the purpose, message, occasion, and vocal modulation to the audience.

1.6. Support opinions with detailed evidence and with visual or media displays that use appropriate technology.

### **Grade 7**

#### Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

#### Organization and Focus

1.2. Support all statements and claims with anecdotes, descriptions, facts and statistics, and specific examples.

#### Research and Technology

1.4 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.

2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. The writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

2.4. Write persuasive compositions:

- a. State a clear position or perspective in support of a proposition or proposal.
- b. Describe the points in support of the proposition, employing well-articulated evidence.
- c. Anticipate and address reader concerns and counterarguments.

### **Grade 8**

#### Writing

2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive essays of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

2.4. Write persuasive compositions:

- a. Include a well-defined thesis (i.e., one that makes a clear and knowledgeable judgment).
- b. Present detailed evidence, examples, and reasoning to support arguments, differentiating between facts and opinion.
- c. Provide details, reasons, and examples, arranging them effectively by anticipating and answering reader concerns and counterarguments.

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# Looking to the Future

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Organization and Delivery of Oral Communication

Prepare and deliver short presentations on ideas, premises, or images obtained from various common sources.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver presentations that use various sources.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Prepare and deliver presentations and reports in various content areas, including a purpose, point of view, introduction, coherent transition, and appropriate conclusions.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Writing: Organization and Focus

Write simple compositions, such as descriptions and comparison and contrast, that have a main idea and some detail.

Early Intermediate ELD Level: Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.

Intermediate ELD Level: Writing: Organization and Focus

Write brief expository compositions (e.g., description, comparison and contrast, cause and effect, and problem and solution) that include a thesis and some points of support.

## Language Arts

### *Grade 6*

Reading

2.0 Reading Comprehension (Focus on Informational Materials)

Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose. The selections in Recommended Readings in Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students. In addition, by grade eight, students read one million words annually on their own, including a good representation of grade level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade six, students continue to make progress toward this goal.

## Structural Features of Informational Materials

2.1 Identify the structural features of popular media (e.g., newspapers, magazines, online information) and use the features to obtain information.

## Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

## Organization and Focus

1.1. Choose the form of writing (e.g., personal letter, letter to the editor, review, poem, report, narrative) that best suits the intended purpose.

1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

2.2 Write expository compositions (e.g., description, explanation, comparison and contrast, problem and solution):

a. State the thesis or purpose.

b. Explain the situation.

c. Follow an organizational pattern appropriate to the type of composition.

## Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

## Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Organization and Delivery of Oral Communication

1.4. Select a focus, an organizational structure, and a point of view, matching the purpose, message, occasion, and vocal modulation to the audience.

1.5. Emphasize salient points to assist the listener in following the main ideas and concepts.

## **Grade 7**

### Listening and Speaking

1.0. Listening and Speaking Strategies: Deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. Students evaluate the content of oral communication.

### Organization and Delivery of Oral Communication

1.5. Arrange supporting details, reasons, descriptions, and examples effectively and persuasively in relation to the audience.

1.6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact, for effective presentations.

## **Grade 8**

### Writing

2.0 Writing Applications (Genres and Their Characteristics)

Students write narrative, expository, persuasive, and descriptive essays of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

- 2.1 Write biographies, autobiographies, short stories, or narratives:
- a. Relate a clear, coherent incident, event, or situation by using well-chosen details.
  - b. Reveal the significance of, or the writer's attitude about, the subject.

### ***Grades 9-10***

Writing

#### 2.0 Writing Applications (Genres and Their Characteristics)

Students combine the rhetorical strategies of narration, exposition, persuasion, and description to produce texts of at least 1,500 words each. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

- 2.1 Write biographical or autobiographical narratives or short stories:
- a. Relate a sequence of events and communicate the significance of the events to the audience.

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# Market Research

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

Organization and Focus

1.1. Choose the form of writing (e.g., personal letter, letter to the editor, review, poem, report, narrative) that best suits the intended purpose.

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

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# Measuring a Million

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 3*

Measurement and Geometry

1.0 Students choose and use appropriate units and measurement tools to quantify the properties of objects:

1.1 Choose the appropriate tools and units (metric and U.S.) and estimate and measure the length, liquid volume, and weight/mass of given objects.

### *Grade 4*

Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.1 Read and write whole numbers in the millions.

### *Grade 5*

Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

Measurement and Geometry

1.0 Students understand and compute the volumes and areas of simple objects:

1.3 Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter [cm<sup>3</sup>], cubic meter [m<sup>3</sup>], cubic inch [in<sup>3</sup>], cubic yard [yd<sup>3</sup>]) to compute the volume of rectangular solids.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

## **Grade 6**

### Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations ( $a/b$ ,  $a$  to  $b$ ,  $a:b$ ).

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

### Algebra and Functions

2.0 Students analyze and use tables, graphs, and rules to solve problems involving rates and proportions:

2.1 Convert one unit of measurement to another (e.g., from feet to miles, from centimeters to inches).

3.0 Students investigate geometric patterns and describe them algebraically:

3.1 Use variables in expressions describing geometric quantities (e.g.,  $P = 2w + 2l$ ,  $A = 1/2bh$ ,  $C = pd$  - the formulas for the perimeter of a rectangle, the area of a triangle, and the circumference of a circle, respectively).

3.2 Express in symbolic form simple relationships arising from geometry.

### Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.7 Make precise calculations and check the validity of the results from the context of the problem.

## **Grade 7**

### Algebra and Functions

1.0 Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:

1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area  $A$ ).

### Measurement and Geometry

1.0 Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:

1.1 Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (e.g., miles per hour and feet per second, cubic inches to cubic centimeters).

2.0 Students compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects. They know how perimeter, area, and volume are affected by changes of scale:

2.1 Use formulas routinely for finding the perimeter and area of basic two-dimensional figures and the surface area and volume of basic three-dimensional figures, including rectangles, parallelograms, trapezoids, squares, triangles, circles, prisms, and cylinders.

#### Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.8 Make precise calculations and check the validity of the results from the context of the problem.

#### ***Grades 8-12: Algebra I***

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

#### ***Grades 8-12: Geometry***

8.0 Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

### **Science**

#### ***Grade 4***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

b. Measure and estimate the weight, length, or volume of objects.

#### ***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

f. Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.

#### ***Grade 6: Focus on Earth Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.
- d. Communicate the steps and results from an investigation in written reports and oral presentations.

***Grade 7: Focus on Life Sciences***

- 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.
  - e. Communicate the steps and results from an investigation in written reports and oral presentations.

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# The More the Merrier?

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Early Intermediate ELD Level: Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Science

### *Grade 6: Focus on Earth Sciences*

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

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# On the Double

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.1 Read and write whole numbers in the millions.

1.2 Order and compare whole numbers and decimals to two decimal places.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

### *Grade 5*

Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

3.0 Students move beyond a particular problem by generalizing to other situations:

3.3 Develop generalizations of the results obtained and apply them in other circumstances.

## **Grade 6**

### Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations ( $a/b$ ,  $a$  to  $b$ ,  $a:b$ ).

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

### Algebra and Functions

1.0 Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results:

1.1 Write and solve one-step linear equations in one variable.

1.2 Write and evaluate an algebraic expression for a given situation, using up to three variables.

### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.7 Make precise calculations and check the validity of the results from the context of the problem.

## **Grade 7**

### Algebra and Functions

1.0 Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:

1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area  $A$ ).

### Measurement and Geometry

1.0 Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:

1.3 Use measures expressed as rates (e.g., speed, density) and measures expressed as products (e.g., person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.

### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.8 Make precise calculations and check the validity of the results from the context of the problem.

***Grades 8-12: Algebra I***

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

**Science**

***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

c. Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.

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# People on the Move

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Organization and Delivery of Oral Communication

Prepare and deliver short presentations on ideas, premises, or images obtained from various common sources.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver presentations that use various sources.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Prepare and deliver presentations and reports in various content areas, including a purpose, point of view, introduction, coherent transition, and appropriate conclusions.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Writing: Organization and Focus

Write simple compositions, such as descriptions and comparison and contrast, that have a main idea and some detail.

Early Intermediate ELD Level: Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.

Intermediate ELD Level: Writing: Organization and Focus

Write brief expository compositions (e.g., description, comparison and contrast, cause and effect, and problem and solution) that include a thesis and some points of support.

## History and Social Science

### *Grade 8*

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

3. List the reasons for the wave of immigration from Northern Europe to the United States and describe the growth in the number, size, and spatial arrangements of cities (e.g., Irish immigrants and the Great Irish Famine).

8.12 Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.

5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).

### **Grades 6-8**

#### Chronological and Spatial Thinking

3. Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries and to explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

## **Language Arts**

### **Grade 6**

#### Writing

- 1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

#### Organization and Focus

- 1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.
- 2.0. Writing Applications (Genres and Their Characteristics): Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.
  - 2.2 Write expository compositions (e.g., description, explanation, comparison and contrast, problem and solution):
    - a. State the thesis or purpose.
    - b. Explain the situation.
    - c. Follow an organizational pattern appropriate to the type of composition.
    - d. Offer persuasive evidence to validate arguments and conclusions as needed.

#### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

#### Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.
- 2.0 Speaking Applications (Genres and Their Characteristics)  
Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.
  - 2.2 Deliver informative presentations:
    - b. Develop the topic with facts, details, examples, and explanations from multiple authoritative sources (e.g., speakers, periodicals, online information).

### **Grade 7**

#### Writing

- 1.0. Writing Strategies

Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

#### Research and Technology

1.4 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. Students evaluate the content of oral communication.

#### Organization and Delivery of Oral Communication

1.4. Organize information to achieve particular purposes and to appeal to the background and interests of the audience.

### ***Grades 9-10***

#### Listening and Speaking

##### 2.0 Speaking Applications (Genres and Their Characteristics)

Students deliver polished formal and extemporaneous presentations that combine the traditional rhetorical strategies of narration, exposition, persuasion, and description. Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.3 Apply appropriate interviewing techniques:

- a. Prepare and ask relevant questions.
- b. Make notes of responses.

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# Population Circle

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Reading: Comprehension

Understand and follow simple one-step directions for classroom activities.

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Kindergarten*

K.6 Students understand that history relates to events, people, and places of other times.

3. Understand how people lived in earlier times and how their lives would be different today (e.g., getting water from a well, growing food, making clothing, having fun, forming organizations, living by rules and laws).

### *Grades K - 5*

Chronological and Spatial Thinking

1. Students place key events and people of the historical era they are studying in a chronological sequence and within a spatial context; they interpret time lines.

2. Students correctly apply terms related to time, including past, present, future, decade, century, and generation.

3. Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.

Historical Interpretation

3. Students identify and interpret the multiple causes and effects of historical events.

## Mathematics

### *Grade 1*

Number Sense

1.0 Students understand and use numbers up to 100:

1.1 Count, read, and write whole numbers to 100.

### *Grade 2*

Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools, such as manipulatives or sketches, to model problems.

### *Grade 3*

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 4**

Statistics, Data Analysis, and Probability

1.0 Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

1.3 Interpret one-and two-variable data graphs to answer questions about a situation.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 5**

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 6**

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 7**

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grades 8-12: Probability and Statistics**

8.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

## **Science**

### **Kindergarten**

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

a. Observe common objects by using the five senses.

e. Communicate observations orally and through drawings.

## ***Grade 2***

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - a. Make predictions based on observed patterns and not random guessing.
  - g. Follow oral instructions for a scientific investigation.

## ***Grade 3***

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:
  - c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.
5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - c. Use numerical data in describing and comparing objects, events, and measurements.
  - d. Predict the outcome of a simple investigation and compare the result with the prediction.
  - e. Collect data in an investigation and analyze those data to develop a logical conclusion.

## ***Grade 4***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - e. Construct and interpret graphs from measurements.

## ***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
  - h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

## ***Grade 6: Focus on Earth Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - a. Develop a hypothesis.
  - c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.

## ***Grade 8: Focus on Physical Sciences***

9. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

g. Distinguish between linear and nonlinear relationships on a graph of data.

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# Power of the Pyramids

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 10*

10.10 Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America, and China.

1. Understand the challenges in the regions, including their geopolitical, cultural, military, and economic significance and the international relationships in which they are involved.

2. Describe the recent history of the regions, including political divisions and systems, key leaders, religious issues, natural features, resources, and population patterns.

### *Grade 11*

11.8 Students analyze the economic boom and social transformation of post-World War II America.

7. Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

### *Grades 9 - 12*

Chronological and Spatial Thinking

1. Students compare the present with the past, evaluating the consequences of past events and decisions and determining the lessons that were learned.

2. Students analyze how change happens at different rates at different times; understand that some aspects can change while others remain the same; and understand that change is complicated and affects not only technology and politics but also values and beliefs.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## **Mathematics**

### ***Grade 4***

Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.1 Read and write whole numbers in the millions.

Statistics, Data Analysis, and Probability

1.0 Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

1.3 Interpret one-and two-variable data graphs to answer questions about a situation.

### ***Grade 5***

Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

Statistics, Data Analysis, and Probability

1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

1.2 Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.

1.3 Use fractions and percentages to compare data sets of different sizes.

### ***Grade 6***

Number Sense

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

Algebra and Functions

1.0 Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results:

1.1 Write and solve one-step linear equations in one variable.

1.2 Write and evaluate an algebraic expression for a given situation, using up to three variables.

Statistics, Data Analysis, and Probability

2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:

2.1 Compare different samples of a population with the data from the entire population and identify a situation in which it makes sense to use a sample.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.7 Make precise calculations and check the validity of the results from the context of the problem.

### **Grade 7**

Algebra and Functions

1.0 Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:

1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area A).

1.5 Represent quantitative relationships graphically and interpret the meaning of a specific part of a graph in the situation represented by the graph.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.8 Make precise calculations and check the validity of the results from the context of the problem.

### **Grades 8-12: Algebra I**

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

### **Grades 8-12: Probability and Statistics**

8.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

### **Grades 8-12: Advanced Placement Probability and Statistics**

14.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line graphs and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

## **Science**

### **Grade 4**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Formulate and justify predictions based on cause-and-effect relationships.

e. Construct and interpret graphs from measurements.

### **Grade 5**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

### ***Grade 6: Focus on Earth Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.

### ***Grade 8: Focus on Physical Sciences***

9. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

### ***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

c. Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

a. Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.

d. Formulate explanations by using logic and evidence.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Seeing Double

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.1 Read and write whole numbers in the millions.

### *Grade 5*

Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### *Grade 6*

Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations ( $a/b$ ,  $a$  to  $b$ ,  $a:b$ ).

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

## **Science**

### ***Grade 4***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

f. Follow a set of written instructions for a scientific investigation.

### ***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

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# Stage Stepping

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Beginning ELD Level: Writing: Penmanship and Organization and Focus

Organize and record information from selected literature and content areas by displaying it on pictures, lists, charts, and tables.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### *Grade 5*

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### *Grade 6*

Number Sense

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

**Grade 7**

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

**Grades 8-12: Algebra I**

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

**Science**

**Grade 4**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Formulate and justify predictions based on cause-and-effect relationships.

**Grade 5**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

**Grade 6: Focus on Earth Sciences**

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.

**Grade 7: Focus on Life Sciences**

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.

**Grade 8: Focus on Physical Sciences**

9. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

c. Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.

***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Stash the Trash

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Science

### *Grade 4*

2. Life Sciences. All organisms need energy and matter to live and grow. As a basis for understanding this concept:

c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

f. Follow a set of written instructions for a scientific investigation.

### *Grade 5*

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Plan and conduct a simple investigation based on a student-developed question and write instructions others can follow to carry out the procedure.

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# The Stork and the Grim Reaper

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple one-step directions for classroom activities.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grades K - 5*

Historical Interpretation

2. Students identify the human and physical characteristics of the places they are studying and explain how those features form the unique character of those places.

## Language Arts

### *Grade 3*

Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.3. Respond to questions with appropriate elaboration.

### *Grade 4*

Written and Oral English Language Conventions

- 1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

Sentence Structure

- 1.1. Use simple and compound sentences in writing and speaking.

Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

## **Grade 6**

### Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## **Mathematics**

### **Kindergarten**

#### Statistics, Data Analysis, and Probability

1.0 Students collect information about objects and events in their environment:

1.1 Pose information questions; collect data; and record the results using objects, pictures, and picture graphs.

#### Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools and strategies, such as manipulatives or sketches, to model problems.

### **Grade 1**

#### Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools and strategies, such as manipulatives or sketches, to model problems.

### **Grade 2**

#### Number Sense

4.0 Students understand that fractions and decimals may refer to parts of a set and parts of a whole:

4.1 Recognize, name, and compare unit fractions from  $1/12$  to  $1/2$ .

4.2 Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).

#### Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools, such as manipulatives or sketches, to model problems.

### **Grade 3**

#### Measurement and Geometry

1.0 Students choose and use appropriate units and measurement tools to quantify the properties of objects:

1.1 Choose the appropriate tools and units (metric and U.S.) and estimate and measure the length, liquid volume, and weight/mass of given objects.

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 4**

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## **Grade 5**

### Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

2.3 Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.

### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.

## **Grade 6**

### Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations ( $a/b$ ,  $a$  to  $b$ ,  $a:b$ ).

### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.7 Make precise calculations and check the validity of the results from the context of the problem.

## **Grade 7**

### Measurement and Geometry

1.0 Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:

1.1 Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (e.g., miles per hour and feet per second, cubic inches to cubic centimeters).

1.3 Use measures expressed as rates (e.g., speed, density) and measures expressed as products (e.g., person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.

### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.8 Make precise calculations and check the validity of the results from the context of the problem.

### ***Grades 8-12: Algebra I***

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

## **Science**

### ***Grade 2***

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- a. Make predictions based on observed patterns and not random guessing.
- g. Follow oral instructions for a scientific investigation.

### ***Grade 3***

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:

c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Use numerical data in describing and comparing objects, events, and measurements.
- d. Predict the outcome of a simple investigation and compare the result with the prediction.
- e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### ***Grade 4***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Formulate and justify predictions based on cause-and-effect relationships.

### ***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

f. Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
- e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.
7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
- b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

***Grade 7: Focus on Life Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
- a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:
- c. Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.
  - e. Students know a vital part of an ecosystem is the stability of its producers and decomposers.

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# Take a Stand

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Restate in simple sentences the main idea of oral presentations in subject-matter content.

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Respond to messages by asking questions, challenging statements, or offering examples that affirm the message.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Demonstrate comprehension of oral presentations and instructions through nonverbal responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Restate in simple sentences the main idea of oral presentations in subject-matter content.

Prepare and deliver short oral presentations.

Intermediate ELD Level: Listening and Speaking: Comprehension

Listen attentively to stories and information and identify important details and concepts by using both verbal and nonverbal responses.

Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Identify the main idea and some supporting details of oral presentations, familiar literature, and key concepts of subject-matter content.

Early Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication  
Respond to messages by asking questions, challenging statements, or offering examples that affirm the message.

Advanced ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication  
Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## **History and Social Science**

### ***Grade 11***

11.11 Students analyze the major social problems and domestic policy issues in contemporary American society.

1. Discuss the reasons for the nation's changing immigration policy, with emphasis on how the Immigration Act of 1965 and successor acts have transformed American society.

5. Trace the impact of, need for, and controversies associated with environmental conservation, expansion of the national park system, and the development of environmental protection laws, with particular attention to the interaction between environmental protection advocates and property rights advocates.

### ***Grade 12***

Principles of American Democracy

12.10 Students formulate questions about and defend their analyses of tensions within our constitutional democracy and the importance of maintaining a balance between the following concepts: majority rule and individual rights; liberty and equality; state and national authority in a federal system; civil disobedience and the rule of law; freedom of the press and the right to a fair trial; the relationship of religion and government.

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.

### ***Grades 9 - 12***

Chronological and Spatial Thinking

4. Students relate current events to the physical and human characteristics of places and regions.

Historical Interpretation

6. Students conduct cost-benefit analyses and apply basic economic indicators to analyze the aggregate economic behavior of the U.S. economy.

## **Language Arts**

### ***Grade 6***

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

Organization and Delivery of Oral Communication

1.4. Select a focus, an organizational structure, and a point of view, matching the purpose, message, occasion, and vocal modulation to the audience.

1.5. Emphasize salient points to assist the listener in following the main ideas and concepts.

2.0. Speaking Applications (Genres and Their Characteristics): Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.4. Deliver persuasive presentations:

a. Provide a clear statement of the position.

d. Engage the listener and foster acceptance of the proposition or proposal.

## **Grade 7**

Listening and Speaking

1.0. Listening and Speaking Strategies: Deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. Students evaluate the content of oral communication.

Comprehension

1.1. Ask probing questions to elicit information, including evidence to support the speaker's claims and conclusions.

1.3. Respond to persuasive messages with questions, challenges, or affirmations.

Organization and Delivery of Oral Communication

1.6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact, for effective presentations.

## **Grade 8**

Listening and Speaking

2.0. Speaking Applications (Genres and Their Characteristics): Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.4. Deliver persuasive presentations:

b. Differentiate fact from opinion and support arguments with detailed evidence, examples, and reasoning.

c. Anticipate and answer listener concerns and counterarguments effectively through the inclusion and arrangement of details, reasons, examples, and other elements.

d. Maintain a reasonable tone.

## **Grades 9-10**

Listening and Speaking

1.0. Listening and Speaking Strategies: Students formulate adroit judgments about oral communication. They deliver focused and coherent presentations of their own that convey clear and distinct perspectives and solid reasoning. They use gestures, tone, and vocabulary tailored to the audience and purpose.

Organization and Delivery of Oral Communication

1.3. Choose logical patterns of organization (e.g., chronological, topical, cause and effect) to inform and to persuade, by soliciting agreement or action, or to unite audiences behind a common belief or cause.

2.0. Speaking Applications (Genres and Their Characteristics): Students deliver polished formal and extemporaneous presentations that combine the traditional rhetorical strategies of narration, exposition,

persuasion, and description. Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

2.5. Deliver persuasive arguments (including evaluation and analysis of problems and solutions and causes and effects):

b. Use rhetorical devices to support assertions (e.g., by appeal to logic through reasoning; by appeal to emotion or ethical belief; by use of personal anecdote, case study, or analogy).

c. Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.

d. Anticipate and address the listener's concerns and counterarguments.

## Science

### ***Grade 6: Focus on Earth Sciences***

6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:

b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Recognize whether evidence is consistent with a proposed explanation.

### ***Grade 7: Focus on Life Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

b. Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

d. Formulate explanations by using logic and evidence.

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# Timber!

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple one-step directions for classroom activities.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Understand and follow some multiple-step directions for classroom-related activities.

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 3*

3.4 Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government.

2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.

3.5 Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region.

1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present.

### *Grade 8*

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

## Language Arts

### *Grade 3*

Reading

2.0. Reading Comprehension: Students read and understand grade-level-appropriate material. They draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making

predictions, comparing information from several sources). The selections in Recommended Readings in Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students. In addition to their regular school reading, by grade four, students read one-half million words annually, including a good representation of grade-level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade three, students make substantial progress toward this goal.

#### Comprehension and Analysis of Grade-Level-Appropriate Text

2.7. Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game).

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

#### Comprehension

1.3. Respond to questions with appropriate elaboration.

### **Grade 4**

#### Written and Oral English Language Conventions

1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

#### Sentence Structure

1.1. Use simple and compound sentences in writing and speaking.

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

#### Comprehension

1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

### **Grade 6**

#### Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

#### Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## **Mathematics**

### **Grade 2**

#### Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools, such as manipulatives or sketches, to model problems.

### **Grade 3**

#### Number Sense

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.1 Find the sum or difference of two whole numbers between 0 and 10,000.

#### Algebra and Functions

2.0 Students represent simple functional relationships:

2.2 Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

### **Grade 4**

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 5**

Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

3.0 Students move beyond a particular problem by generalizing to other situations:

3.3 Develop generalizations of the results obtained and apply them in other circumstances.

### **Grade 6**

Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations (  $a/b$ ,  $a$  to  $b$ ,  $a:b$  ).

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.7 Make precise calculations and check the validity of the results from the context of the problem.

### **Grade 7**

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.8 Make precise calculations and check the validity of the results from the context of the problem.

### **Grades 8-12: Probability and Statistics**

8.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

## **Science**

### **Grade 2**

3. Earth Sciences. Earth is made of materials that have distinct properties and provide resources for human activities. As a basis for understanding this concept:

e. Students know rock, water, plants, and soil provide many resources, including food, fuel, and building materials, that humans use.

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

a. Make predictions based on observed patterns and not random guessing.

g. Follow oral instructions for a scientific investigation.

### **Grade 3**

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:

c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Use numerical data in describing and comparing objects, events, and measurements.

d. Predict the outcome of a simple investigation and compare the result with the prediction.

- e. Collect data in an investigation and analyze those data to develop a logical conclusion.

#### **Grade 4**

- 3. Life Sciences. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:
  - c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.
- 6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - c. Formulate and justify predictions based on cause-and-effect relationships.
  - f. Follow a set of written instructions for a scientific investigation.

#### **Grade 5**

- 6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
  - h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

#### **Grade 6: Focus on Earth Sciences**

- 5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
  - e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.
- 6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:
  - b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.
- 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.
  - c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.

#### **Grade 7: Focus on Life Sciences**

- 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

***Grade 8: Focus on Physical Sciences***

9. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.
- g. Distinguish between linear and nonlinear relationships on a graph of data.

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# Transportation Tally

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 10*

10.3 Students analyze the effects of the Industrial Revolution in England, France, Germany, Japan, and the United States.

2. Examine how scientific and technological changes and new forms of energy brought about massive social, economic, and cultural change (e.g., the inventions and discoveries of James Watt, Eli Whitney, Henry Bessemer, Louis Pasteur, Thomas Edison).

### *Grade 11*

11.5 Students analyze the major political, social, economic, technological, and cultural developments of the 1920s.

7. Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

11.8 Students analyze the economic boom and social transformation of post-World War II America.

7. Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

### *Grades 9 - 12*

Chronological and Spatial Thinking

1. Students compare the present with the past, evaluating the consequences of past events and decisions and determining the lessons that were learned.

2. Students analyze how change happens at different rates at different times; understand that some aspects can change while others remain the same; and understand that change is complicated and affects not only technology and politics but also values and beliefs.

4. Students relate current events to the physical and human characteristics of places and regions.

Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

## **Mathematics**

### ***Grade 5***

#### Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

#### Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

3.0 Students move beyond a particular problem by generalizing to other situations:

3.3 Develop generalizations of the results obtained and apply them in other circumstances.

### ***Grade 6***

#### Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations ( $a/b$ ,  $a$  to  $b$ ,  $a:b$ ).

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

#### Algebra and Functions

1.0 Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results:

1.1 Write and solve one-step linear equations in one variable.

1.2 Write and evaluate an algebraic expression for a given situation, using up to three variables.

#### Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## **Grade 7**

### Algebra and Functions

1.0 Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:

1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area A).

### Measurement and Geometry

1.0 Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:

1.3 Use measures expressed as rates (e.g., speed, density) and measures expressed as products (e.g., person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.

### Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## **Grades 8-12: Algebra I**

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

## **Science**

### **Grade 6: Focus on Earth Sciences**

6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:

a. Students know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process.

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# Treasures Underground

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use content-related vocabulary in discussions and reading.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple one-step directions for classroom activities.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Understand and follow some multiple-step directions for classroom-related activities.

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 2*

2.4 Students understand basic economic concepts and their individual roles in the economy and demonstrate basic economic reasoning skills.

3. Understand how limits on resources affect production and consumption (what to produce and what to consume).

### *Grade 3*

3.4 Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government.

2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.

3.5 Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region.

1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present.

### *Grade 8*

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

## **Language Arts**

### ***Grade 3***

#### Reading

- 2.0. Reading Comprehension: Students read and understand grade-level-appropriate material. They draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making predictions, comparing information from several sources). The selections in Recommended Readings in Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students. In addition to their regular school reading, by grade four, students read one-half million words annually, including a good representation of grade-level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade three, students make substantial progress toward this goal.

#### Comprehension and Analysis of Grade-Level-Appropriate Text

- 2.7. Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game).

#### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

#### Comprehension

- 1.3. Respond to questions with appropriate elaboration.

### ***Grade 4***

#### Written and Oral English Language Conventions

- 1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

#### Sentence Structure

- 1.1. Use simple and compound sentences in writing and speaking.

#### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

#### Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

### ***Grade 5***

#### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

#### Comprehension

- 1.1. Ask questions that seek information not already discussed.

### ***Grade 6***

#### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

## Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

## Science

### ***Kindergarten***

3. Earth Sciences. Earth is composed of land, air, and water. As a basis for understanding this concept:
  - c. Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.
4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - e. Communicate observations orally and through drawings.

### ***Grade 2***

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - g. Follow oral instructions for a scientific investigation.

### ***Grade 3***

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:
  - c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.
5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
  - b. Students know matter is transferred over time from one organism to others in the food web and between organisms and the physical environment.
  - e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.
6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:
  - b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.
  - c. Students know the natural origin of the materials used to make common objects.

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# Waste Not, Want Not

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

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# Water Water Everywhere (Elementary/Intermediate)

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple one-step directions for classroom activities.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 2*

2.4 Students understand basic economic concepts and their individual roles in the economy and demonstrate basic economic reasoning skills.

3. Understand how limits on resources affect production and consumption (what to produce and what to consume).

### *Grade 3*

3.4 Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government.

2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.

### *Grades K - 5*

Historical Interpretation

2. Students identify the human and physical characteristics of the places they are studying and explain how those features form the unique character of those places.

## Language Arts

### *Grade 3*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

1.3. Respond to questions with appropriate elaboration.

## **Grade 4**

### Written and Oral English Language Conventions

- 1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

### Sentence Structure

- 1.1. Use simple and compound sentences in writing and speaking.

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

### Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

## **Grade 5**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.1. Ask questions that seek information not already discussed.

## **Grade 6**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

## **Mathematics**

### **Grade 1**

#### Statistics, Data Analysis, and Probability

- 1.0 Students organize, represent, and compare data by category on simple graphs and charts:

- 1.2 Represent and compare data (e.g., largest, smallest, most often, least often) by using pictures, bar graphs, tally charts, and picture graphs.

### **Grade 2**

#### Mathematical Reasoning

- 1.0 Students make decisions about how to set up a problem:

- 1.2 Use tools, such as manipulatives or sketches, to model problems.

### **Grade 3**

#### Measurement and Geometry

- 1.0 Students choose and use appropriate units and measurement tools to quantify the properties of objects:

- 1.1 Choose the appropriate tools and units (metric and U.S.) and estimate and measure the length, liquid volume, and weight/mass of given objects.

#### Mathematical Reasoning

- 2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 4**

#### Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalents of fractions (see Standard 4.0).

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### **Grade 5**

#### Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

#### Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

#### Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

## **Science**

### **Grade 2**

3. Earth Sciences. Earth is made of materials that have distinct properties and provide resources for human activities. As a basis for understanding this concept:

e. Students know rock, water, plants, and soil provide many resources, including food, fuel, and building materials, that humans use.

4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Follow oral instructions for a scientific investigation.

### **Grade 3**

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Use numerical data in describing and comparing objects, events, and measurements.
- e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### ***Grade 5***

- 3. Earth Sciences. Water on Earth moves between the oceans and land through the processes of evaporation and condensation. As a basis for understanding this concept:
  - a. Students know most of Earth's water is present as salt water in the oceans, which cover most of Earth's surface.
  - d. Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water.
- 6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - f. Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.
  - g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
  - h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

### ***Grade 6: Focus on Earth Sciences***

- 5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
  - e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.
- 6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:
  - b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.
- 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

### ***Grade 7: Focus on Life Sciences***

- 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

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# Who Polluted the Potomac?

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## English Language Development

### *Grades 3-5*

Beginning ELD Level: Listening and Speaking: Comprehension  
Answer simple questions with one- to two-word responses.

Retell familiar stories and participate in short conversations by using appropriate gestures, expressions, and illustrative objects.

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Early Intermediate ELD Level: Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication  
Orally identify the main points of simple conversations and stories that are read aloud by using phrases or simple sentences.

Intermediate ELD Level: Listening and Speaking: Comprehension  
Listen attentively to stories and information and identify important details and concepts by using both verbal and nonverbal responses.

Early Advanced ELD Level: Listening and Speaking: Comprehension  
Listen attentively to more complex stories and information on new topics across content areas and identify the main points and supporting details.

Advanced ELD Level: Listening and Speaking: Comprehension  
Listen attentively to stories and information on topics; identify the main points and supporting details.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use content-related vocabulary in discussions and reading.

Beginning ELD Level: Reading: Comprehension  
Respond orally to stories read aloud, giving one- or two- word responses (e.g., "brown bear") to factual comprehension questions.

Understand and follow simple one-step directions for classroom activities.

Beginning ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify, using key words and/or phrases, the main idea in a story read aloud.

Early Intermediate ELD Level: Reading: Comprehension  
Understand and follow simple two-step directions for classroom activities.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Generate and respond to comprehension questions related to the text.

Beginning ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text  
Listen to a story and respond orally in one or two words to factual comprehension questions.

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using simple sentences or phrases.

Demonstrate comprehension of oral presentations and instructions through nonverbal responses (e.g., gestures, pointing, drawing).

Early Intermediate ELD Level: Listening and Speaking: Comprehension  
Ask and answer questions by using phrases or simple sentences.

Intermediate ELD Level: Listening and Speaking: Comprehension  
Listen attentively to stories and information and identify important details and concepts by using both verbal and nonverbal responses.

Beginning ELD Level: Reading: Comprehension  
Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## **History and Social Science**

### ***Grade 3***

3.1 Students describe the physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places, and environments in a spatial context.

2. Trace the ways in which people have used the resources of the local region and modified the physical environment (e.g., a dam constructed upstream changed a river or coastline).

3.2 Students describe the American Indian nations in their local region long ago and in the recent past.

4. Discuss the interaction of new settlers with the already established Indians of the region.

3.3 Students draw from historical and community resources to organize the sequence of local historical events and describe how each period of settlement left its mark on the land.

3. Trace why their community was established, how individuals and families contributed to its founding and development, and how the community has changed over time, drawing on maps, photographs, oral histories, letters, newspapers, and other primary sources.

3.4 Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government.

2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.

### ***Grade 4***

4.4 Students explain how California became an agricultural and industrial power, tracing the transformation of the California economy and its political and cultural development since the 1850s.

4. Describe rapid American immigration, internal migration, settlement, and the growth of towns and cities (e.g., Los Angeles).

### ***Grades K - 5***

#### **Chronological and Spatial Thinking**

1. Students place key events and people of the historical era they are studying in a chronological sequence and within a spatial context; they interpret time lines.

2. Students correctly apply terms related to time, including past, present, future, decade, century, and generation.

3. Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.

#### **Historical Interpretation**

2. Students identify the human and physical characteristics of the places they are studying and explain how those features form the unique character of those places.
3. Students identify and interpret the multiple causes and effects of historical events.

### **Grade 8**

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

8.12 Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.

5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).

### **Grades 6-8**

Historical Interpretation

2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long- and short-term causal relations.

## **Language Arts**

### **Grade 3**

Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.3. Respond to questions with appropriate elaboration.

Organization and Delivery of Oral Communication

- 1.7. Use clear and specific vocabulary to communicate ideas and establish the tone.

### **Grade 4**

Written and Oral English Language Conventions

- 1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

Sentence Structure

- 1.1. Use simple and compound sentences in writing and speaking.

Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.

Organization and Delivery of Oral Communication

- 1.6 Use traditional structures for conveying information (e.g., cause and effect, similarity and difference, and posing and answering a question).

## **Grade 5**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.1. Ask questions that seek information not already discussed.

## **Grade 6**

### Listening and Speaking

- 1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

### Comprehension

- 1.3. Restate and execute multiple-step oral instructions and directions.

## **Science**

### **Grade 3**

3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:

- c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.

- d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations.

5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- e. Collect data in an investigation and analyze those data to develop a logical conclusion.

### **Grade 4**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Formulate and justify predictions based on cause-and-effect relationships.

### **Grade 5**

3. Earth Sciences. Water on Earth moves between the oceans and land through the processes of evaporation and condensation. As a basis for understanding this concept:

- d. Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water.

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

### **Grade 6: Focus on Earth Sciences**

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

***Grade 7: Focus on Life Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

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# A World of Difference

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

### *Grades 9-12*

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grade 10*

10.10 Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America, and China.

1. Understand the challenges in the regions, including their geopolitical, cultural, military, and economic significance and the international relationships in which they are involved.

2. Describe the recent history of the regions, including political divisions and systems, key leaders, religious issues, natural features, resources, and population patterns.

### *Grade 12*

Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.

### *Grades 9 - 12*

Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Statistics, Data Analysis, and Probability

1.0 Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

1.1 Formulate survey questions; systematically collect and represent data on a number line; and coordinate graphs, tables, and charts.

2.0 Students make predictions for simple probability situations:

2.2 Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4;  $\frac{3}{4}$ ).

## **Grade 5**

Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.3 Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.

Statistics, Data Analysis, and Probability

1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

1.3 Use fractions and percentages to compare data sets of different sizes.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

3.0 Students move beyond a particular problem by generalizing to other situations:

3.3 Develop generalizations of the results obtained and apply them in other circumstances.

## **Grade 6**

Statistics, Data Analysis, and Probability

2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:

2.5 Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims.

3.0 Students determine theoretical and experimental probabilities and use these to make predictions about events:

3.2 Use data to estimate the probability of future events (e.g., batting averages or number of accidents per mile driven).

Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.7 Make precise calculations and check the validity of the results from the context of the problem.

### **Grade 7**

#### Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

2.8 Make precise calculations and check the validity of the results from the context of the problem.

### **Grades 8-12: Algebra II**

19.0 Students use combinations and permutations to compute probabilities.

### **Grades 8-12: Probability and Statistics**

1.0 Students know the definition of the notion of independent events and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces.

### **Grades 8-12: Advanced Placement Probability and Statistics**

1.0 Students solve probability problems with finite sample spaces by using the rules for addition, multiplication, and complementation for probability distributions and understand the simplifications that arise with independent events.

## **Science**

### **Grade 4**

3. Life Sciences. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:

b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

c. Formulate and justify predictions based on cause-and-effect relationships.

### **Grade 5**

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.

h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.

### ***Grade 6: Focus on Earth Sciences***

5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
  - e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

### ***Grade 7: Focus on Life Sciences***

7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
  - c. Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.

### ***Grades 9-12: Biology/Life Sciences***

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:
  - a. Students know biodiversity is the sum total of different kinds of organisms and is affected by alterations of habitats.
  - b. Students know how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size.

### ***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:
  - m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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# World Real Estate

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## English Language Development

### *Grades 6-8*

Beginning ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.

Early Intermediate ELD Level: Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

Beginning ELD Level: Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

## History and Social Science

### *Grades 9 - 12*

Chronological and Spatial Thinking

3. Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods.

## Language Arts

### *Grade 6*

Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

## Mathematics

### *Grade 4*

Statistics, Data Analysis, and Probability

1.0 Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

1.3 Interpret one-and two-variable data graphs to answer questions about a situation.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

### *Grade 5*

Statistics, Data Analysis, and Probability

1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

1.2 Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.

Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

***Grades 8-12: Algebra I***

15.0 Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

***Grades 8-12: Probability and Statistics***

8.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

***Grades 8-12: Advanced Placement Probability and Statistics***

14.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line graphs and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

**Science**

***Grade 5***

6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.

***Grades 9-12: Investigation and Experimentation***

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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## ***You're One in Six Billion! (Reading)***

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### **English Language Development**

#### ***Grades 6-8***

Early Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development  
Apply knowledge of academic and social vocabulary to achieve independent reading.

Early Intermediate ELD Level: Reading: Comprehension  
Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

Early Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and orally identify the main ideas and details of informational materials, literary text, and text in content areas by using simple sentences.

Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Read text and use detailed sentences to explain orally the main ideas and details of informational text, literary text, and text in content areas.

Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary text, and text in content areas.

Intermediate ELD Level: Reading: Narrative Analysis of Grade-Level-Appropriate Text  
Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

### **History and Social Science**

#### ***Grade 8***

8.6 Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

#### ***Grades 6-8***

Historical Interpretation

2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long-and short-term causal relations.

3. Students explain the sources of historical continuity and how the combination of ideas and events explains the emergence of new patterns.

## **Language Arts**

### ***Grade 6***

#### Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

#### Word Recognition

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

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## ***Your Place on the Planet (Reading)***

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### **English Language Development**

#### ***Grades 6-8***

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Read simple paragraphs and passages independently.

Intermediate ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Early Advanced ELD Level: Reading: Vocabulary and Concept Development  
Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Advanced ELD Level: Reading: Vocabulary and Concept Development  
Apply knowledge of academic and social vocabulary to achieve independent reading.

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Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

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Intermediate ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
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Early Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary texts, and texts in content areas.

Advanced ELD Level: Reading: Comprehension and Analysis of Grade Level-Appropriate Text  
Identify and explain the main ideas and critical details of informational materials, literary text, and text in content areas.

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### **Language Arts**

#### ***Grade 6***

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