A correlation of

Population Connection Activities

from

Multiplying People, Dividing Resources: *Global Math Activities*

to

Georgia Performance Standards

Organized by:

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

Table of Contents

All in the Family

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader

Mathematics

Grade Six

ALGEBRA

M6A2. Students will consider relationships between varying quantities.

b. Use manipulatives or draw pictures to solve problems involving proportional relationships.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

a. Formulate questions that can be answered by data. Students should collect data by using samples from a larger population (surveys), or by conducting experiments.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Seven

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Eight

ALGEBRA

M8A5. Students will understand systems of linear equations and use them to solve problems.

c. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M8P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS

MMIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIIIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines

c. Recognize and apply mathematics in contexts outside of mathematics.

MC1P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC2P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS
MC3P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC3P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS
MC4P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC4P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS
MA1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MA1P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MA2P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Draw conclusions based on analyzed data.

S6CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.
b. Estimate the effect of making a change in one part of a system on the system as a whole.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND

SCSh3. Students will identify and investigate problems scientifically.
c. Collect, organize and record appropriate data.

d. Graphically compare and analyze data points and/or summary statistics.

e. Develop reasonable conclusions based on data collected.

SB4. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.
d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

Every Picture Tells a Story

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Mathematics

Grade Five

DATA ANALYSIS

M5D1. Students will analyze graphs.

a. Analyze data presented in a graph.

b. Compare and contrast multiple graphic representations (circle graphs, line graphs, bar graphs, etc.) for a single set of data and discuss the advantages/disadvantages of each.

Grade Six

ALGEBRA
M6A2. Students will consider relationships between varying quantities.
b. Use manipulatives or draw pictures to solve problems involving proportional relationships.

DATA ANALYSIS AND PROBABILITY
M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.
b. Using data, construct frequency distributions, frequency tables, and graphs.

c. Choose appropriate graphs to be consistent with the nature of the data (categorical or numerical). Graphs should include pictographs, histograms, bar graphs, line graphs, circle graphs, and line plots.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS
M6P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.
a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grade Seven

DATA ANALYSIS AND PROBABILITY
M7D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.
b. Construct frequency distributions.

c. Analyze data using measures of central tendency (mean, median, and mode), including recognition of outliers.

d. Analyze data with respect to measures of variation (range, quartiles, interquartile range).

f. Analyze data using appropriate graphs, including pictographs, histograms, bar graphs, line graphs, circle graphs, and line plots introduced earlier, and using box-and-whisker plots and scatter plots.

PROCESS STANDARDS
M7P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grade Eight

ALGEBRA

M8A5. Students will understand systems of linear equations and use them to solve problems.
b. Solve systems of equations graphically and algebraically, using technology as appropriate.

c. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MA1P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MA2P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines
c. Recognize and apply mathematics in contexts outside of mathematics.

MC1P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC2P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC3P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC4P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Mathematics I)

DATA ANALYSIS AND PROBABILITY

MMID3. Students will relate samples to a population.

a. Compare summary statistics (mean, median, quartiles, and inter-quartile range) from samples to the corresponding population parameters.

PROCESS STANDARDS

MMIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIIIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

Science

Grade Six

HABITS OF MIND

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

S6CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

S6CS7. Students will question scientific claims and arguments effectively.

b. Recognize that there may be more than one way to interpret a given set of findings.

Grade Seven

HABITS OF MIND

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

S7CS7. Students will question scientific claims and arguments effectively.

d. Recognize that there may be more than one way to interpret a given set of findings.

Grade Eight

HABITS OF MIND

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

S8CS7. Students will question scientific claims and arguments effectively.

d. Recognize that there may be more than one way to interpret a given set of findings.

Grades Nine to Twelve (Biology)

HABITS OF MIND

SCSh3. Students will identify and investigate problems scientifically.

d. Graphically compare and analyze data points and/or summary statistics.

Social Studies

Grade Six

LATIN AMERICA & CANADA

ECONOMIC UNDERSTANDINGS

SS6E3. The student will describe the factors that influence economic growth and examine their presence or absence in countries such as Canada, Mexico, Brazil, and Argentina.

c. Describe the role of natural resources, including land, air, water, minerals, time, and other gifts of nature.

EUROPE

ECONOMIC UNDERSTANDING

SS6E7. The student will describe the factors that cause economic growth and examine their presence or absence in countries such as England, Germany, Russia, Poland, and Romania.

c. Describe the role of natural resources, including land, air, water, minerals, time, and other gifts of nature.

Grade Seven

AFRICA

ECONOMIC UNDERSTANDING

SS7E3. The student will describe the factors that influence economic growth and examine their presence or absence in such African countries as Chad, South Africa, Nigeria, and Kenya.

c. Describe how natural resources, including land, air, water, minerals, time, and other gifts of nature have affected economic development.

SOUTHWEST ASIA (MIDDLE EAST)
ECONOMIC UNDERSTANDING
SS7E7. The student will describe the factors that influence economic growth and examine their presence or absence in Middle Eastern countries such as Israel, Lebanon, Turkey, Israel, Saudi Arabia and Iran.
c. Describe the role of natural resources, including land, air, water, minerals, time, and other gifts of nature.

SOUTHERN AND EASTERN ASIA
GEOGRAPHIC UNDERSTANDING
SS7G10. The student will evaluate the impact of government policies and individual behaviors on Southern and Eastern Asia's environment
c. Describe the environmental problems, such as over population, industrial pollution, and flooding, facing countries in Eastern Asia including China, Japan, and South Korea.

ECONOMIC UNDERSTANDING
SS7E10. The student will describe the factors that cause economic growth and examine their presence or absence in Southern and Eastern Asian countries such as Pakistan, India, China, and Indonesia.
c. Describe the role of natural resources, including land, air, water, minerals, time, and other gifts of nature.

Everything Counts

English Language Arts

Grade Four

LISTENING, SPEAKING, AND VIEWING

ELA4LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Five

LISTENING, SPEAKING, AND VIEWING

ELA5LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Mathematics

Grade Three

NUMBER AND OPERATIONS

M3N1. Students will further develop their understanding of whole numbers and ways of representing them.

a. Identify place values from tenths through ten thousands.

M3N3. Students will further develop their understanding of multiplication of whole numbers and develop the ability to apply it in problem solving.

g. Solve problems requiring multiplication.

M3N4. Students will understand the meaning of division and develop the ability to apply it in problem solving.

f. Solve problems requiring division.

Grade Four

NUMBER AND OPERATIONS

M4N1. Students will further develop their understanding of how whole numbers are represented in the base-ten numeration system.

a. Identify place value names and places from hundredths through one million.

M4N4. Students will further develop their understanding of division of whole numbers and divide in problem solving situations without calculators.

b. Solve problems involving division by a 2-digit number (including those that generate a remainder).

ALGEBRA

M4A1. Students will represent and interpret mathematical relationships in quantitative expressions.

b. Represent unknowns using symbols, such as __ and __.

c. Write and evaluate mathematical expressions using symbols and different values.

DATA ANALYSIS

M4D1. Students will gather, organize, and display data according to the situation and compare related features.

a. Represent data in bar, line and pictographs.

PROCESS SKILLS

M4P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

b. Solve single and multi-step routine word problems related to all appropriate fourth grade math standards.

c. Determine the operation(s) needed to solve a problem.

M4P2. Students will investigate, develop, and evaluate mathematical arguments.

M4P3. Students will use the language of mathematics to express ideas precisely.

M4P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M4P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Five

ALGEBRA

M5A1. Students will represent and interpret the relationships between quantities algebraically.

a. Use variables, such as n or x, for unknown quantities in algebraic expressions.

DATA ANALYSIS

M5D1. Students will analyze graphs.

a. Analyze data presented in a graph.

M5D2. Students will collect, organize, and display data using the most appropriate graph.

PROCESS SKILLS

M5P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

a. Solve non-routine word problems using the strategy of make it simpler as well as all strategies learned in previous grades.

b. Solve single and multi-step routine word problems related to all appropriate fifth grade math standards.

c. Determine the operation(s) needed to solve a problem.

M5P2. Students will investigate, develop, and evaluate mathematical arguments.

M5P3. Students will use the language of mathematics to express ideas precisely.

M5P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M5P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

a. Formulate questions that can be answered by data. Students should collect data by using samples from a larger population (surveys), or by conducting experiments.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

M6D2. Students will use experimental and simple theoretical probability and understand the nature of sampling. They will also make predictions from investigations.

a. Predict the probability of a given event through trials/simulations (experimental probability), and represent the probability as a ratio.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

M7A2. Students will understand and apply linear equations in one variable.

a. Given a problem, define a variable, write an equation, solve the equation, and interpret the solution.

DATA ANALYSIS AND PROBABILITY

M7D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

a. Formulate questions and collect data from a census of at least 30 objects and from samples of varying sizes.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.

a. Represent a given situation using algebraic expressions or equations in one variable.

b. Simplify and evaluate algebraic expressions.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M8P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS
MMIP5. Students will represent mathematics in multiple ways.
c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics II)

DATA ANALYSIS AND PROBABILITY
MMIID1. Students will make informal inferences about population means and standard deviations from sample data.
a. Pose a question and collect sample data from at least two different populations.

PROCESS STANDARDS
MMIIP5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics II)

DATA ANALYSIS AND PROBABILITY
MC2D1. Students will relate samples to a population.
a. Compare summary statistics (mean, median, quartiles, and interquartile range) from one sample data distribution to another sample data distribution in describing center and variability of the data distributions.

Grades Nine to Twelve (Core Mathematics III)

DATA ANALYSIS AND PROBABILITY
MC3D1. Using sample data, students will make informal inferences about population means and standard deviations.
a. Pose a question and collect sample data from at least two different populations.

Grades Nine to Twelve (Accelerated Mathematics I)

DATA ANALYSIS AND PROBABILITY
MA1D3. Students will relate samples to a population.
a. Compare summary statistics (mean, median, quartiles, and interquartile range) from one sample data distribution to another sample data distribution in describing center and variability of the data distributions.

Grades Nine to Twelve (Accelerated Mathematics II)

DATA ANALYSIS AND PROBABILITY
MA2D1. Using sample data, students will make informal inferences about population means and standard deviations.
a. Pose a question and collect sample data from at least two different populations.

Science

Grade Four

HABITS OF MIND
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.

S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.

S4CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.

S4CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.

THE NATURE OF SCIENCE
S4CS8. Students will understand important features of the process of scientific inquiry.
Students will apply the following to inquiry learning practices:
a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

Grade Five

HABITS OF MIND
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.

c. Offer reasons for findings and consider reasons suggested by others.

S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.

S5CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.

THE NATURE OF SCIENCE
S5CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

Grade Six

HABITS OF MIND
S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE
S6CS9. Students will investigate the features of the process of scientific inquiry.
Students will apply the following to inquiry learning practices:
a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

Grade Seven

HABITS OF MIND
S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

S7CS7. Students will question scientific claims and arguments effectively.
c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

THE NATURE OF SCIENCE
S7CS9. Students will investigate the features of the process of scientific inquiry.
Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND
S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

S8CS7. Students will question scientific claims and arguments effectively.

c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry.

Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Global Warming Begins at Home

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Mathematics

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

M7A2. Students will understand and apply linear equations in one variable.

a. Given a problem, define a variable, write an equation, solve the equation, and interpret the solution.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.
a. Represent a given situation using algebraic expressions or equations in one variable.

b. Simplify and evaluate algebraic expressions.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

M8A5. Students will understand systems of linear equations and use them to solve problems.
b. Solve systems of equations graphically and algebraically, using technology as appropriate.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS

MMIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND

SCSh3. Students will identify and investigate problems scientifically.

a. Suggest reasonable hypotheses for identified problems.

c. Collect, organize and record appropriate data.

e. Develop reasonable conclusions based on data collected.

INTERDEPENDENCE OF LIFE

SB4d. Human beings are part of the earth's ecosystems. Human activities can, deliberately or inadvertently, alter the equilibrium in ecosystems.

SB4. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

Social Studies

Grades Nine to Twelve (World Geography)

SSWG8. The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States

f. Analyze how transportation and communications improvements led to the growth of industry in the United States and the consequences of such growth especially environmentally for both Canada and the United States.

How Much Space Do We Need?

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student -to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Mathematics

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

MEASUREMENT

M6M2. Students will use appropriate units of measure for finding length, perimeter, area and volume and will express each quantity using the appropriate unit.

c. Compare and contrast units of measure for perimeter, area, and volume.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

M7A2. Students will understand and apply linear equations in one variable.

a. Given a problem, define a variable, write an equation, solve the equation, and interpret the solution.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.
a. Represent a given situation using algebraic expressions or equations in one variable.

b. Simplify and evaluate algebraic expressions.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS

MMIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS
MC1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS
MC2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS
MC3P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS
MC4P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

b. Use metric input units (such as seconds, meters, or grams per milliliter) of scientific calculations to determine the proper unit for expressing the answer.

d. Draw conclusions based on analyzed data.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

c. Apply the metric system to a scientific investigation that includes metric-to-metric conversion. (i.e. centimeters to meters)

d. Draw conclusions based on analyzed data.

THE NATURE OF SCIENCE
S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND
S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

c. Apply the metric system to scientific investigations that include metric-to-metric conversions (i.e., centimeters to meters).

THE NATURE OF SCIENCE
S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND
SCSh3. Students will identify and investigate problems scientifically.
a. Suggest reasonable hypotheses for identified problems.

c. Collect, organize and record appropriate data.

e. Develop reasonable conclusions based on data collected.

SB4. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.
d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

FLOW OF MATTER AND ENERGY
SB4b. The amount of life any environment can support is limited by the available energy, water, oxygen, and minerals, and by the ability of ecosystems to recycle the residue of dead organic materials. Human activities and technology can change the flow and reduce the fertility of the land.

INTERDEPENDENCE OF LIFE
SB4d. Human beings are part of the earth's ecosystems. Human activities can, deliberately or inadvertently, alter the equilibrium in ecosystems.

Social Studies

Grades Nine to Twelve (World Geography)

SSWG1. The student will explain the physical aspects of geography.

a. Describe the concept of place by explaining how physical characteristics such as landforms, bodies of water, climate, soils, natural vegetation, and animal life are used to describe a place.

Measuring a Million

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

d. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Mathematics

Grade Five

PROCESS SKILLS

M5P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

c. Determine the operation(s) needed to solve a problem.

Grade Six

MEASUREMENT

M6M2. Students will use appropriate units of measure for finding length, perimeter, area and volume and will express each quantity using the appropriate unit.

a. Measure length to the nearest half, fourth, eighth and sixteenth of an inch.

b. Select and use units of appropriate size and type to measure length, perimeter, area and volume.

c. Compare and contrast units of measure for perimeter, area, and volume.

M6M3. Students will determine the volume of fundamental solid figures (right rectangular prisms, cylinders, pyramids and cones).

c. Estimate the volumes of simple geometric solids.

M6M4. Students will determine the surface area of solid figures (right rectangular prisms and cylinders).

c. Estimate the surface areas of simple geometric solids.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

M7A2. Students will understand and apply linear equations in one variable.

a. Given a problem, define a variable, write an equation, solve the equation, and interpret the solution.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.

a. Represent a given situation using algebraic expressions or equations in one variable.

b. Simplify and evaluate algebraic expressions.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use metric input units (such as seconds, meters, or grams per milliliter) of scientific calculations to determine the proper unit for expressing the answer.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Apply the metric system to a scientific investigation that includes metric to metric conversion. (i.e. centimeters to meters).

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Apply the metric system to scientific investigations that include metric to metric conversions (i.e., centimeters to meters).

On the Double

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Mathematics

Grade Four

NUMBER AND OPERATIONS

M4N4. Students will further develop their understanding of division of whole numbers and divide in problem solving situations without calculators.

b. Solve problems involving division by a 2-digit number (including those that generate a remainder).

Grade Five

NUMBER AND OPERATIONS

M5N3. Students will further develop their understanding of the meaning of multiplication and division with decimal fractions and use them.

a. Model multiplication and division of decimal fractions by another decimal fraction.

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A2. Students will consider relationships between varying quantities.

a. Analyze and describe patterns arising from mathematical rules, tables, and graphs.

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS
M6P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA
M7A1. Students will represent and evaluate quantities using algebraic expressions.
a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

PROCESS STANDARDS
M7P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA
M8A1. Students will use algebra to represent, analyze, and solve problems.
a. Represent a given situation using algebraic expressions or equations in one variable.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS
M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

Social Studies

Grade Seven

SOUTHERN AND EASTERN ASIA

GEOGRAPHIC UNDERSTANDING

SS7G10. The student will evaluate the impact of government policies and individual behaviors on Southern and Eastern Asia’s environment

c. Describe the environmental problems, such as over population, industrial pollution, and flooding, facing countries in Eastern Asia including China, Japan, and South Korea.

The Pop Ecology Files

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

d. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Mathematics

Grade Six

ALGEBRA

M6A2. Students will consider relationships between varying quantities.

a. Analyze and describe patterns arising from mathematical rules, tables, and graphs.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

PROCESS STANDARDS
M7P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA
M8A3. Students will understand relations and linear functions.
h. Identify relations and functions as linear or nonlinear.

M8A5. Students will understand systems of linear equations and use them to solve problems.
b. Solve systems of equations graphically and algebraically, using technology as appropriate.

c. Interpret solutions in problem contexts.

PROCESS STANDARDS
M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS
MMIP1. Students will solve problems.
b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS
MMIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Draw conclusions based on analyzed data.

S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and explain how parts can be related to other parts in a system such as predator/prey relationships in a community/ecosystem.

S7CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE
S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

LIFE SCIENCE
S7L4. Students will examine the dependence of organisms on one another and their environments.
c. Recognize that changes in environmental conditions can affect the survival of both individuals and entire species.

Grade Eight

HABITS OF MIND
S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE
S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND
SCSh3. Students will identify and investigate problems scientifically.
c. Collect, organize and record appropriate data.

d. Graphically compare and analyze data points and/or summary statistics.

e. Develop reasonable conclusions based on data collected.

SCSh6. Students will communicate scientific investigations and information clearly.
c. Use data as evidence to support scientific arguments and claims in written or oral presentations.

INTERDEPENDENCE OF LIFE
SB4a and SB4c. Ecosystems can be reasonably stable over hundreds or thousands of years. As any population of organisms grows, it is held in check by one or more environmental factors: depletion of food or nesting sites, increased loss to increased numbers of predators, or parasites. If a disaster such as flood or fire occurs, the damaged ecosystem is likely to recover in stages that eventually result in a system similar to the original one.

Population Clock

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

d. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

Mathematics

Grade Five

NUMBER AND OPERATIONS

M5N2. Students will further develop their understanding of decimal fractions as part of the base-ten number system.

a. Understand place value.

PROCESS SKILLS

M5P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

c. Determine the operation(s) needed to solve a problem.

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A2. Students will consider relationships between varying quantities.

a. Analyze and describe patterns arising from mathematical rules, tables, and graphs.

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.
a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.
a. Represent a given situation using algebraic expressions or equations in one variable.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

b. Use metric input units (such as seconds, meters, or grams per milliliter) of scientific calculations to determine the proper unit for expressing the answer.

d. Draw conclusions based on analyzed data.

S6CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

Power of the Pyramids

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Mathematics

Grade Four

NUMBER AND OPERATIONS

M4N1. Students will further develop their understanding of how whole numbers are represented in the base-ten numeration system.

a. Identify place value names and places from hundredths through one million.

M4N4. Students will further develop their understanding of division of whole numbers and divide in problem solving situations without calculators.

b. Solve problems involving division by a 2-digit number (including those that generate a remainder).

Grade Five

NUMBER AND OPERATIONS

M5N3. Students will further develop their understanding of the meaning of multiplication and division with decimal fractions and use them.

a. Model multiplication and division of decimal fractions by another decimal fraction.

DATA ANALYSIS

M5D1. Students will analyze graphs.

a. Analyze data presented in a graph.

M5D2. Students will collect, organize, and display data using the most appropriate graph.

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.

a. Represent a given situation using algebraic expressions or equations in one variable.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND

SCSh3. Students will identify and investigate problems scientifically.

c. Collect, organize and record appropriate data.

d. Graphically compare and analyze data points and/or summary statistics.

e. Develop reasonable conclusions based on data collected.

Social Studies

Grade Seven

SOUTHERN AND EASTERN ASIA

GEOGRAPHIC UNDERSTANDING

SS7G10. The student will evaluate the impact of government policies and individual behaviors on Southern and Eastern Asia's environment

c. Describe the environmental problems, such as over population, industrial pollution, and flooding, facing countries in Eastern Asia including China, Japan, and South Korea.

d. Explain efforts by governments and industries in China, Japan, and South Korea to meet environmental problems such as over population, industrial pollution, and flooding.

The Stork and the Grim Reaper

English Language Arts

Grade Four

LISTENING, SPEAKING, AND VIEWING

ELA4LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Five

LISTENING, SPEAKING, AND VIEWING

ELA5LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

c. Responds to questions with appropriate information.

i. Responds appropriately to comments and questions.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Mathematics

Grade Three

ALGEBRA

M3A1. Students will use mathematical expressions to represent relationships between quantities and interpret given expressions.

a. Describe and extend numeric and geometric patterns.

PROCESS SKILLS

M3P1. Students will solve problems that arise in mathematics and in other contexts.

a. Solve non-routine word problems using the strategy of logical reasoning as well as all strategies learned in previous grades.

M3P2. Students will investigate, develop, and evaluate mathematical arguments.

M3P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M3P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Four

ALGEBRA

M4A1. Students will represent and interpret mathematical relationships in quantitative expressions.

a. Understand and apply patterns and rules to describe relationships and solve problems.

PROCESS SKILLS

M4P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

c. Determine the operation(s) needed to solve a problem.

M4P2. Students will investigate, develop, and evaluate mathematical arguments.

M4P3. Students will use the language of mathematics to express ideas precisely.

M4P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M4P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Five

MEASUREMENT

M5M3. Students will measure capacity with appropriately chosen units and tools.

a. Use milliliters, liters, fluid ounces, cups, pints, quarts, and gallons to measure capacity.

PROCESS SKILLS

M5P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

b. Solve single and multi-step routine word problems related to all appropriate fifth grade math standards.

c. Determine the operation(s) needed to solve a problem.

M5P2. Students will investigate, develop, and evaluate mathematical arguments.

M5P3. Students will use the language of mathematics to express ideas precisely.

M5P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M5P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Six

MEASUREMENT

M6M2. Students will use appropriate units of measure for finding length, perimeter, area and volume and will express each quantity using the appropriate unit.

b. Select and use units of appropriate size and type to measure length, perimeter, area and volume.

c. Compare and contrast units of measure for perimeter, area, and volume.

ALGEBRA

M6A1. Students will understand the concept of ratio and use it to represent quantitative relationships.

M6A2. Students will consider relationships between varying quantities.

a. Analyze and describe patterns arising from mathematical rules, tables, and graphs.

b. Use manipulatives or draw pictures to solve problems involving proportional relationships.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Seven

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Eight

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

M8P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Science

Grade Three

HABITS OF MIND

S3CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world.

S3CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.

THE NATURE OF SCIENCE

S3CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

Grade Four

HABITS OF MIND

S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.

S4CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.

c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.

S4CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.

THE NATURE OF SCIENCE

S4CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

LIFE SCIENCE

S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.

Grade Five

HABITS OF MIND

S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.

S5CS5. Students will communicate scientific ideas and activities clearly.

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

THE NATURE OF SCIENCE

S5CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

Grade Six

HABITS OF MIND

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.

d. Draw conclusions based on analyzed data.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Social Studies

Grade Seven

SOUTHERN AND EASTERN ASIA

GEOGRAPHIC UNDERSTANDING

SS7G10. The student will evaluate the impact of government policies and individual behaviors on Southern and Eastern Asia's environment
c. Describe the environmental problems, such as over population, industrial pollution, and flooding, facing countries in Eastern Asia including China, Japan, and South Korea.

Grade Six

EUROPE

HISTORICAL UNDERSTANDING

SS6H4. The student will describe the important developments in Europe between 1400 CE.
f. Describe the Industrial Revolution including the impact on cities, life styles, and agriculture.

Timber!

English Language Arts

Grade Four

LISTENING, SPEAKING, AND VIEWING

ELA4LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Five

LISTENING, SPEAKING, AND VIEWING

ELA5LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

i. Responds appropriately to comments and questions.

j. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Mathematics

Grade Three

NUMBER AND OPERATIONS

M3N2. Students will further develop their skills of addition and subtraction and apply them in problem solving.

c. Solve problems requiring addition and subtraction.

ALGEBRA

M3A1. Students will use mathematical expressions to represent relationships between quantities and interpret given expressions.

a. Describe and extend numeric and geometric patterns.

DATA ANALYSIS

M3D1. Students will create and interpret simple tables and graphs.

a. Solve problems by organizing and displaying data in bar graphs and tables.

PROCESS SKILLS

M3P1. Students will solve problems that arise in mathematics and in other contexts.

a. Solve non-routine word problems using the strategy of logical reasoning as well as all strategies learned in previous grades.

b. Solve single and multi-step routine word problems related to all appropriate third grade math standards.

M3P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M3P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Four

ALGEBRA

M4A1. Students will represent and interpret mathematical relationships in quantitative expressions.

a. Understand and apply patterns and rules to describe relationships and solve problems.

DATA ANALYSIS

M4D1. Students will gather, organize, and display data according to the situation and compare related features.

a. Represent data in bar, line and pictographs.

PROCESS SKILLS

M4P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

a. Solve non-routine word problems using the strategies of work backwards, use or make a table, and make an organized list as well as all strategies learned in previous grades.

b. Solve single and multi-step routine word problems related to all appropriate fourth grade math standards.

c. Determine the operation(s) needed to solve a problem.

M4P2. Students will investigate, develop, and evaluate mathematical arguments.

M4P3. Students will use the language of mathematics to express ideas precisely.

M4P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M4P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Five

DATA ANALYSIS

M5D1. Students will analyze graphs.

a. Analyze data presented in a graph.

M5D2. Students will collect, organize, and display data using the most appropriate graph.

PROCESS SKILLS

M5P1. Using the appropriate technology, students will solve problems that arise in mathematics and in other contexts.

a. Solve non-routine word problems using the strategy of make it simpler as well as all strategies learned in previous grades.

b. Solve single and multi-step routine word problems related to all appropriate fifth grade math standards.

M5P2. Students will investigate, develop, and evaluate mathematical arguments.

M5P3. Students will use the language of mathematics to express ideas precisely.

M5P4. Students will understand how mathematical ideas interconnect and build on one another and apply mathematics in other content areas.

M5P5. Students will create and use pictures, manipulatives, models, and symbols to organize, record, and communicate mathematical ideas.

Grade Six

ALGEBRA

M6A2. Students will consider relationships between varying quantities.

a. Analyze and describe patterns arising from mathematical rules, tables, and graphs.

b. Use manipulatives or draw pictures to solve problems involving proportional relationships.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

a. Formulate questions that can be answered by data. Students should collect data by using samples from a larger population (surveys), or by conducting experiments.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A3. Students will understand relations and linear functions.

h. Identify relations and functions as linear or nonlinear.

M8A5. Students will understand systems of linear equations and use them to solve problems.

b. Solve systems of equations graphically and algebraically, using technology as appropriate.

c. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Four

HABITS OF MIND

S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

c. Offer reasons for findings and consider reasons suggested by others.

S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.

S4CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.

c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.

S4CS5. Students will communicate scientific ideas and activities clearly.

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

THE NATURE OF SCIENCE

S4CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

Grade Five

HABITS OF MIND

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Keep records of investigations and observations and do not alter the records later.

c. Offer reasons for findings and consider reasons suggested by others.

S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.

S5CS5. Students will communicate scientific ideas and activities clearly.

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

THE NATURE OF SCIENCE

S5CS8. Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

b. Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

S6CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

f. Use ratios and proportions, including constant rates, in appropriate problems.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Social Studies

Grade Three

ECONOMIC UNDERSTANDINGS

SS3E1. The student will describe the four types of productive resources.

a. Natural (land).

SS3E3. The student will give examples of interdependence and trade and will explain how voluntary exchange benefits both parties.

a. Describe the interdependence of consumers and producers of goods and services.

Transportation Tally

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Mathematics

Grade Five

ALGEBRA

M5A1. Students will represent and interpret the relationships between quantities algebraically.

a. Use variables, such as n or x, for unknown quantities in algebraic expressions.

Grade Six

NUMBER AND OPERATIONS

M6N1. Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.

g. Solve problems involving fractions, decimals, and percents.

ALGEBRA

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

ALGEBRA

M7A1. Students will represent and evaluate quantities using algebraic expressions.

a. Translate verbal phrases to algebraic expressions.

b. Simplify and evaluate algebraic expressions, using commutative, associative, and distributive properties as appropriate.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

ALGEBRA

M8A1. Students will use algebra to represent, analyze, and solve problems.

a. Represent a given situation using algebraic expressions or equations in one variable.

b. Simplify and evaluate algebraic expressions.

c. Solve algebraic equations in one variable, including equations involving absolute values.

d. Interpret solutions in problem contexts.

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics I)

PROCESS STANDARDS

MMIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics I)

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

Social Studies

Grades Nine to Twelve (World Geography)

SSWG8. The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States

f. Analyze how transportation and communications improvements led to the growth of industry in the United States and the consequences of such growth especially environmentally for both Canada and the United States.

What Do You Think?

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Actively solicits another person's comments or opinions.

h. Responds appropriately to comments and questions.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Actively solicits another person's comments or opinions.

h. Responds appropriately to comments and questions.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Actively solicits another person's comments or opinions.

h. Responds appropriately to comments and questions.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

d. Actively solicits another person's comments or opinions.

LISTENING, SPEAKING, AND VIEWING. When delivering and responding to presentations, the student:

b. Applies appropriate interviewing techniques (e.g., prepares and asks relevant questions; makes notes of responses; uses language that conveys maturity, sensitivity and respect; responds correctly and effectively to questions).

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student
b. Asks relevant questions.

c. Responds to questions with appropriate information.

d. Actively solicits another person's comments or opinion.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING
ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student
b. Asks relevant questions.

c. Responds to questions with appropriate information.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING
ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student
b. Asks relevant questions.

d. Actively solicits another person's comments or opinion.

Mathematics

Grade Six

DATA ANALYSIS AND PROBABILITY
M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.
a. Formulate questions that can be answered by data. Students should collect data by using samples from a larger population (surveys), or by conducting experiments.

b. Using data, construct frequency distributions, frequency tables, and graphs.

e. Relate the data analysis to the context of the questions posed.

PROCESS STANDARDS
M6P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Seven

DATA ANALYSIS AND PROBABILITY
M7D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.
a. Formulate questions and collect data from a census of at least 30 objects and from samples of varying sizes.

b. Construct frequency distributions.

c. Analyze data using measures of central tendency (mean, median, and mode), including recognition of outliers.

d. Analyze data with respect to measures of variation (range, quartiles, interquartile range).

f. Analyze data using appropriate graphs, including pictographs, histograms, bar graphs, line graphs, circle graphs, and line plots introduced earlier, and using box-and-whisker plots and scatter plots.

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grade Eight

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics I)

DATA ANALYSIS AND PROBABILITY

MMID3. Students will relate samples to a population.

a. Compare summary statistics (mean, median, quartiles, and inter-quartile range) from samples to the corresponding population parameters.

PROCESS STANDARDS

MMIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics II)

DATA ANALYSIS AND PROBABILITY

MMIID1. Students will make informal inferences about population means and standard deviations from sample data.

a. Pose a question and collect sample data from at least two different populations.

b. Understand and calculate the means and standard deviations of sets of data.

c. Use the means and standard deviations to compare data sets.

PROCESS STANDARDS
MMIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS
MMIIIP1. Students will solve problems.
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics I)

PROCESS STANDARDS
MC1P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics II)

DATA ANALYSIS AND PROBABILITY
MC2D1. Students will relate samples to a population.
a. Compare summary statistics (mean, median, quartiles, and interquartile range) from one sample data distribution to another sample data distribution in describing center and variability of the data distributions.

PROCESS STANDARDS
MC2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics III)

DATA ANALYSIS AND PROBABILITY

MC3D1. Using sample data, students will make informal inferences about population means and standard deviations.

a. Pose a question and collect sample data from at least two different populations.

b. Understand and calculate the means and standard deviations of sets of data.

c. Use means and standard deviations to compare data sets.

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics I)

DATA ANALYSIS AND PROBABILITY

MA1D3. Students will relate samples to a population.

a. Compare summary statistics (mean, median, quartiles, and interquartile range) from one sample data distribution to another sample data distribution in describing center and variability of the data distributions.

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Grades Nine to Twelve (Accelerated Mathematics II)

DATA ANALYSIS AND PROBABILITY

MA2D1. Using sample data, students will make informal inferences about population means and standard deviations.

a. Pose a question and collect sample data from at least two different populations.

b. Understand and calculate the means and standard deviations of sets of data.

c. Use means and standard deviations to compare data sets.

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

Science

Grade Six

HABITS OF MIND

S6CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

b. Use the mean, median, and mode to analyze a set of scientific data.

S7CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

S7CS7. Students will question scientific claims and arguments effectively.

c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

b. Find the mean, median, and mode and use them to analyze a set of scientific data.

S8CS6. Students will communicate scientific ideas and activities clearly.

c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

S8CS7. Students will question scientific claims and arguments effectively.

c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

A World of Difference

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

c. Responds to questions with appropriate information.

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Mathematics

Grade Six

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

e. Relate the data analysis to the context of the questions posed.

M6D2. Students will use experimental and simple theoretical probability and understand the nature of sampling. They will also make predictions from investigations.

a. Predict the probability of a given event through trials/simulations (experimental probability), and represent the probability as a ratio.

b. Determine, and use a ratio to represent, the theoretical probability of a given event.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P2. Students will reason and evaluate mathematical arguments.

b. Make and investigate mathematical conjectures.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Seven

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Eight

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M8P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics I)

DATA ANALYSIS AND PROBABILITY

MMID2. Students will use the basic laws of probability

a. Find the probabilities of mutually exclusive events.

b. Find the probabilities of dependent events.

PROCESS STANDARDS

MMIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics II)

PROCESS STANDARDS

MMIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Mathematics III)

PROCESS STANDARDS

MMIIIP1. Students will solve problems.

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MMIIIP3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MMIIIP4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MMIIIP5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics I)

DATA ANALYSIS AND PROBABILITY

MC1D1. Students will determine the number of outcomes related to a given event

a. Apply addition and multiplication principles of counting.

MC1D2. Students will use the basic laws of probability

a. Find the probabilities of mutually exclusive events.

b. Find the probabilities of dependent events.

PROCESS STANDARDS

MC1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC1P4. Students will make connections among mathematical ideas and to other disciplines

c. Recognize and apply mathematics in contexts outside of mathematics.

MC1P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics II)

PROCESS STANDARDS

MC2P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC2P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC2P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC2P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics III)

PROCESS STANDARDS

MC3P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC3P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC3P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC3P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Core Mathematics IV)

PROCESS STANDARDS

MC4P1. Students will solve problems (using appropriate technology).
a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MC4P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

MC4P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

MC4P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Accelerated Mathematics I)

DATA ANALYSIS AND PROBABILITY

MA1D2. Students will use the basic laws of probability.

b. Find the probabilities of dependent events.

PROCESS STANDARDS

MA1P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA1P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA1P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MA1P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grades Nine to Twelve (Accelerated Mathematics II)

PROCESS STANDARDS

MA2P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

MA2P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

MA2P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

MA2P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

a. Understand the importance of—and keep—honest, clear, and accurate records in science.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

a. Observe and explain how parts can be related to other parts in a system such as predator/prey relationships in a community/ecosystem.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS7. Students will question scientific claims and arguments effectively.

c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

LIFE SCIENCE

S7L4. Students will examine the dependence of organisms on one another and their environments.

c. Recognize that changes in environmental conditions can affect the survival of both individuals and entire species.

INTERDEPENDENCE OF LIFE

S7L4de and S7L4f. In all environments-freshwater, marine, forest, desert, grassland, mountain, and others-organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. In any particular environment, the growth and survival of organisms depend on the physical conditions.

Grade Eight

HABITS OF MIND

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.

a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS7. Students will question scientific claims and arguments effectively.

c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry.

Students will apply the following to inquiry learning practices:

b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grades Nine to Twelve (Biology)

HABITS OF MIND

SCSh3. Students will identify and investigate problems scientifically.

c. Collect, organize and record appropriate data.

e. Develop reasonable conclusions based on data collected.

INTERDEPENDENCE OF LIFE

SB4d. Human beings are part of the earth's ecosystems. Human activities can, deliberately or inadvertently, alter the equilibrium in ecosystems.

SB4. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.

Social Studies

Grades Nine to Twelve (World Geography)

SSWG1. The student will explain the physical aspects of geography.

c. Analyze the interrelationship between physical and human characteristics of a place.

World Real Estate

English Language Arts

Grade Six

LISTENING, SPEAKING, AND VIEWING

ELA6LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Seven

LISTENING, SPEAKING, AND VIEWING

ELA7LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Eight

LISTENING, SPEAKING, AND VIEWING

ELA8LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

b. Asks relevant questions.

h. Responds appropriately to comments and questions.

i. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Nine

LISTENING, SPEAKING, AND VIEWING

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Ten

LISTENING, SPEAKING, AND VIEWING

ELA10LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

f. Contributes voluntarily and responds directly when solicited by teacher or discussion leader.

Grade Eleven

LISTENING, SPEAKING, AND VIEWING

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Grade Twelve

LISTENING, SPEAKING, AND VIEWING

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions. The student

f. Volunteers contributions and responds when directly solicited by teacher or discussion leader.

Mathematics

Grade Six

ALGEBRA

M6A1. Students will understand the concept of ratio and use it to represent quantitative relationships.

DATA ANALYSIS AND PROBABILITY

M6D1. Students will pose questions, collect data, represent and analyze the data, and interpret results.

b. Using data, construct frequency distributions, frequency tables, and graphs.

PROCESS STANDARDS

M6P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

c. Apply and adapt a variety of appropriate strategies to solve problems.

M6P3. Students will communicate mathematically.

a. Organize and consolidate their mathematical thinking through communication.

b. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others.

d. Use the language of mathematics to express mathematical ideas precisely.

M6P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M6P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Seven

PROCESS STANDARDS

M7P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M7P3. Students will communicate mathematically.

d. Use the language of mathematics to express mathematical ideas precisely.

M7P4. Students will make connections among mathematical ideas and to other disciplines.

c. Recognize and apply mathematics in contexts outside of mathematics.

M7P5. Students will represent mathematics in multiple ways.

a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Grade Eight

PROCESS STANDARDS

M8P1. Students will solve problems (using appropriate technology).

a. Build new mathematical knowledge through problem solving.

b. Solve problems that arise in mathematics and in other contexts.

M8P3. Students will communicate mathematically.
d. Use the language of mathematics to express mathematical ideas precisely.

M8P4. Students will make connections among mathematical ideas and to other disciplines.
c. Recognize and apply mathematics in contexts outside of mathematics.

M8P5. Students will represent mathematics in multiple ways.
a. Create and use representations to organize, record, and communicate mathematical ideas.

c. Use representations to model and interpret physical, social, and mathematical phenomena.

Science

Grade Six

HABITS OF MIND

S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep—honest, clear, and accurate records in science.

b. Understand that hypotheses are valuable if they lead to fruitful investigations, even if the hypotheses turn out not to be completely accurate descriptions.

S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.

d. Draw conclusions based on analyzed data.

S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.

S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S6CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
a. Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.

EARTH SCIENCE

S6E3. Students will recognize the significant role of water in earth processes.
a. Explain that a large portion of the Earth's surface is water, consisting of oceans, rivers, lakes, underground water, and ice.

PROCESSES THAT SHAPE THE EARTH

S6E5h and S6E5i. Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of these changes have decreased the capacity of the environment to support some life forms.

Grade Seven

HABITS OF MIND

S7CS1. Students will explore of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Understand that hypotheses can be valuable, even if they turn out not to be completely accurate.

S7CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

d. Draw conclusions based on analyzed data.

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S7CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate simple tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S7CS9. Students will investigate the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.

Grade Eight

HABITS OF MIND

S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Understand that hypotheses can be valuable even if they turn out not to be completely accurate.

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Understand that different models (such as physical replicas, pictures, and analogies) can be used to represent the same thing.

S8CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information in appropriate tables, charts, and graphs, and identify relationships they reveal.

THE NATURE OF SCIENCE

S8CS9. Students will understand the features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:
b. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.