

MATH

Please note: Estimation and problem solving strategies should be included in number sense/computation, measurement and algebra standards.

NUMBER SENSE/COMPUTATION

Read, Write, and Represent Numbers

- _____ *Translate between decimals, fractions, and percents *MA6-01*
- _____ Exponents
- _____ Equivalent representations of powers of 10

Order and Compare Numbers

- _____ *Decimals through thousandths *MA6-02*
- _____ *Fractions and mixed numbers *MA6-03*
- _____ Terminating decimals

Number Operations

- _____ *Solve problems, word problems, and number sentences *MA6-04*
 - *whole number addition, subtraction, multiplication, division
 - *decimal addition, subtraction and multiplication
 - *fractions/mixed numbers addition and subtraction
 - percents and proportions

Classification of Numbers

- _____ *Solve problems involving descriptions of numbers *MA6-05*
 - *factors, multiples
 - *square numbers
 - *prime/composite

MEASUREMENT

Use Measurement Tools and Units

- _____ Length
- _____ *Angles *MA6-06*

Solve Problems Involving Area, Perimeter, and Volume

- _____ *Rectangle *MA6-07*
- _____ *Triangle *MA6-08*
- _____ *Parallelogram *MA6-09*
- _____ Circle
- _____ *Irregular shape *MA6-10*

Estimation

- _____ *Compare and estimate length (including perimeter), area, volume, and angles using referents *MA6-11*

ALGEBRA

Patterns

- _____ Describe, extend and make generalizations about geometric and numeric patterns with at least two operations

Write, Simplify and Solve Expressions and Equations

- _____ Represent and solve problems with equations and inequalities
- _____ Translate between different representations (table, written or graph) of whole number relationships

GEOMETRY

Properties of Single Figures

- _____ *Identify, describe, and sketch circles including radius, diameter and chord *MA6-12*
- _____ *Classify, describe, and sketch 2-D regular and irregular shapes *MA6-13*

Solve Problems Involving 2-D Shapes

- _____ *Identify properties of triangles and quadrilaterals *MA6-14*
- _____ Analyze results of a combination of transformations

DATA ANALYSIS AND PROBABILITY

Read and Interpret Displays

- _____ *Read, interpret, represent, and make predictions in *MA6-15*
 - bar graph - line (dot) plot
 - *Venn diagram (2 circles)
 - chart/table
 - line graph - circle graph

Statistics

- _____ Determine mode, range, median and mean given a set of data or a graph

Probability

- _____ Represent the solution of the probability of a simple event as a fraction, decimal or percent.
- _____ Apply the fundamental counting principle.

SCIENCE Grade 6

INQUIRY

Scientific Inquiry

- _____ Construct charts, graphs and visualizations to display data. *Sc6-01*

Technological Design

- _____ Build and test a prototype using available materials. *Sc6-02*

LIFE SCIENCE

CELLS, HEREDITY AND CLASSIFICATION

- _____ Compare and contrast plant and animal cells, and prokaryotic and eukaryotic cells. *Sc6-03*
- _____ Describe the structure and function of cell organelles. *Sc6-04*
- _____ Describe general characteristics of photosynthesis and cellular respiration. *Sc6-05*
- _____ Use a Punnet square to predict the probability of possible genotypes in offspring. *Sc6-06*
- _____ Find evidence that shows how organisms have changed over time. *Sc6-07*

PHYSICAL SCIENCE

Interactions of Matter

- _____ Compare and contrast physical and chemical properties of matter. *Sc6-08*
- _____ Compare and contrast the properties and phase changes of solids, liquids and gases. *Sc6-09*
- _____ Compare and contrast elements, compounds and mixtures. *Sc6-10*
- _____ Identify subatomic particles and describe terms used to compare atoms (i.e. atomic number, atomic mass and mass number). *Sc6-11*
- _____ Describe characteristics of elements in major groups of the periodic table. *Sc6-12*

EARTH SCIENCE

Earth's Changing Surface

- _____ Compare latitude and longitude; true and magnetic north; and describe how a compass is used to find directions on Earth. *Sc6-13*
- _____ Describe factors that affect mechanical and chemical weathering. *Sc6-14*
- _____ Identify sources, properties and types of soil, how it is affected by climate and methods of preventing soil damage and loss. *Sc6-15*
- _____ Describe the process of wind erosion and deposition. *Sc6-16*
- _____ Describe types of glaciers, ways in which they move, and how they change the Earth. *Sc6-17*

Weather and Climate

- _____ Describe characteristics of the atmosphere and how energy is transferred within it. *Sc6-18*
- _____ Describe the process of the water cycle. *Sc6-19*
- _____ Identify how air masses form fronts and how they affect the weather. *Sc6-20*
- _____ Describe types of severe weather including thunderstorms, tornados and hurricanes. *Sc6-21*
- _____ Explain the difference between weather and climate and identify factors that affect climate. *Sc6-22*

CONNECTIONS

Science Practices

- _____ Demonstrate lab safety procedures and accepted practices of science. *Sc6-23*
- _____ Identify equipment for measuring in the laboratory and use correct metric units. *Sc6-24*

S/T/S (Science, Technology and Society)

- _____ Describe the contributions of scientists of different ethnic and gender groups. *Sc6-25*
- _____ Identify science-related careers an the skills/education needed for them. *Sc6-26*