KEY CONCEPTS

SCIENCE – GRADE 8

SCIENCE AS INQUIRY:

_____• Identify questions that guide/design scientific investigations and can be answered by a scientific investigation.

_____• Determine correct evidence to support a hypothesis.

_____• Identify flaws in an investigation.

_____• Identify parts of experimental design, types of variables, and controls; sequence steps in a scientific investigation; analyze data; and justify a logical conclusion.

_____• Use graphs, charts, tables, models, weather maps, and topographic maps to interpret, make predictions, and solve problems.

_____• Identify first steps scientists take when preparing to work on an investigation.

_____• Identify the best way to present results of an investigation (students and scientists).

_____• Use mathematics to connect a data set with a model, graph, symbols, inferences, or a valid conclusion.

_____• Describe how technology has helped scientists collect more accurate data or affected society.

_____• Explain why scientists question other scientists' work.

_____• Identify appropriate safety procedures and tools.

_____• Recognize the value of communication, multiple trials, and empirical evidence in the development of conclusions and scientific theories.

_____• Determine the mean, median, and mode for a data set.

Physical Science

_____• Compare physical properties of materials (density, freezing or boiling point, solubility, malleability, conductivity, magnetism).

_____• Identify elements in common objects (clothing, food, tools, rocks, soil, water).

_____• Use the periodic table to classify or identify properties of individual or groups of elements.

_____• Draw a distance-time line graph indicating motions such as constant speed, acceleration, deceleration (negative acceleration).