



# CW Middle School

## Science 7 A

### 1. Nature of Science – Scientific Explanations (25.00%)

#### Learning Targets

#### 1.1 I can make an informed decision using a scientific decision-making model to propose a course of action and decide how I would act.

Learning Target	Descriptor	Definition
4	Proficient	I can make an informed decision using a scientific decision-making model to propose a course of action and decide how I would act.
3	Developing	I can organize data in a table, chart or graph to evaluate positive short term and long term consequences and negative short term and long term consequences.
2	Basic	I can outline the steps in a decision making model.
1	Minimal	I can identify values and bias in decision making and investigation.
0	No Evidence	No evidence shown.

#### 1.2 I can communicate how scientific inquiry is used in investigation and explain the benefits of scientific inquiry.

Learning Target	Descriptor	Definition
4	Proficient	I can communicate how scientific inquiry is used in investigation and explain the benefits of scientific inquiry.
3	Developing	I can outline and describe the steps to the scientific approach.
2	Basic	I can compare and contrast accuracy and precision and differentiate between quantitative and qualitative research.
1	Minimal	I can define vocabulary and identify tools related to scientific inquiry.
0	No Evidence	No evidence shown.



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### 2. Classifying and Exploring Life (25.00%)

#### Learning Targets

#### 2.1 I can apply observations to argue what characteristics define an organism.

Learning Target	Descriptor	Definition
4	Proficient	I can apply observations to argue what characteristics define an organism.
3	Developing	I can use a table to identify, define and cite examples that characterize a living organism.
2	Basic	I can justify that the invention of the microscope changed the ideas about living things.
1	Minimal	I can define vocabulary related to characteristics of life.
0	No Evidence	No evidence shown.

#### 2.2 I can highlight how the methods of classifying living things into groups have changed over time.

Learning Target	Descriptor	Definition
4	Proficient	I can highlight how the methods of classifying living things into groups have changed over time.
3	Developing	I can create and use a tool to classify living things.
2	Basic	i can describe the usefulness of a scientific name and outline the hierarchy for the modern classification scheme used in biology.
1	Minimal	I can define vocabulary related to classifying organisms.
0	No Evidence	No evidence shown.



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### 3. Interactions of Life - Ecology (25.00%)

#### Learning Targets

3.1 I can develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Learning Target	Descriptor	Definition
4	Proficient	I can develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
3	Developing	I can summarize how energy moves through an ecosystem.
2	Basic	I can summarize a food and energy pyramid.
1	Minimal	I can define vocabulary related to matter and energy in the environment.
0	No Evidence	No evidence shown.


3.2 I can use evidence from studies to illustrate how changes to physical and biological factors affect ecosystems and biological populations.

Learning Target	Descriptor	Definition
4	Proficient	I can use evidence from studies to illustrate how changes to physical and biological factors affect ecosystems and biological populations.
3	Developing	I can summarize a population growth curve and discuss how carrying capacity limits growth.
2	Basic	I can recommend actions that would preserve biodiversity in ecosystems.
1	Minimal	I can define terms related to population growth, ecosystems and biodiversity.
0	No Evidence	No evidence shown.

3.3 I can create a model to describe the cycling of matter and flow of energy among the living and nonliving components of an ecosystem.

Learning Target	Descriptor	Definition
4	Proficient	I can create a model to describe the cycling of matter and flow of energy among the living and nonliving components of an ecosystem.
3	Developing	I can predict patterns of interaction of organisms across multiple ecosystems as it relates to matter and energy.
2	Basic	I identify and give examples of predator-prey relationships, cooperative relationships, rhythms, and symbiotic relationships in relation to matter and energy.
1	Minimal	I can define vocabulary related to matter and energy in the environment.
0	No Evidence	No evidence shown.

### 4. Cell Structure and Function- Molecules to Organisms (25.00%)

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4.1 I can develop and use a model to describe the function of a cell.

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Learning Target	Descriptor	Definition
4	Proficient	I can develop and use a model to describe the function of a cell.
3	Developing	I can compare and contrast prokaryotic and eukaryotic cells and compare and contrast plant and animal cells.
2	Basic	I can diagram and describe the basic substances in a cell.
1	Minimal	I can diagram and give a brief explanation of the function of cell organelles.
0	No Evidence	No evidence shown.

4.2 I can predict the movement of materials across a cell membrane and relate it to homeostasis.


Learning Target	Descriptor	Definition
4	Proficient	I can predict the movement of materials across a cell membrane and relate it to homeostasis.
3	Developing	I can use a mathematical model to explain what regulates cell size.
2	Basic	I can differentiate between simple diffusion, osmosis, facilitated diffusion, active transport, endocytosis and exocytosis.
1	Minimal	I can define vocabulary related to the transport of materials across a selectively permeable membrane.
0	No Evidence	No evidence shown.

4.3 I can trace the movement of matter and energy in the process of photosynthesis and cellular respiration while showing that the two equations are complementary processes.

Learning Target	Descriptor	Definition
4	Proficient	I can trace the movement of matter and energy in the process of photosynthesis and cellular respiration while showing that the two equations are complementary processes.
3	Developing	I can justify that living cells use photosynthesis to make food molecules and that living cells release energy through the processes of fermentation and cellular respiration.
2	Basic	I can write the equations for photosynthesis and cellular metabolism.
1	Minimal	I can define vocabulary related to cells and energy.
0	No Evidence	No evidence shown.

4.4 I can connect the cell cycle, mitosis and cell differentiation to describe how an individual cell becomes a multicellular organism.

Learning Target	Descriptor	Definition
4	Proficient	I can connect the cell cycle, mitosis and cell differentiation to describe how an individual cell becomes a multicellular organism.

  
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Learning Target	Descriptor	Definition
3	Developing	I can outline the phases of mitosis.
2	Basic	I can outline the parts of the cell cycle.
1	Minimal	I can define vocabulary related to cell cycle and cell division.
0	No Evidence	No evidence shown.

Submitted on 8/24/2021 by