

Standardized Assessment Tasks for
STAAR Alternate

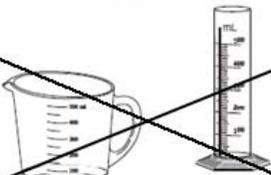
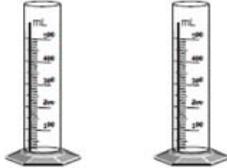
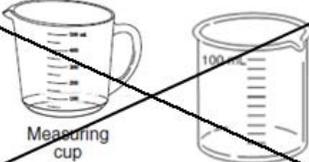
Grade 5 Science

Definitions/Examples for STAAR Reporting Category 1 (5.5, 3.5) Essence Statement A

The following definitions clarify terms used in the grade 5 science assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Levels 3, 2, and 1: pages 5 and 6

two identical containers with measurement markings on the side – two containers that are exactly the same with markings on their sides denoting how much water is inside. It is important that the containers are clear so that the student can view the water level easily. For visually impaired students, it would be appropriate to tactilely mark the outside of the two containers to indicate the water level.

Appropriate	Not Appropriate
 <p>Measuring cup Measuring cup</p>	 <p>Measuring cup Graduated cylinder</p>
 <p>Graduated cylinder Graduated cylinder</p>	 <p>Measuring cup Beaker</p>
 <p>Beaker Beaker</p>	 <p>Beaker Graduated cylinder</p>

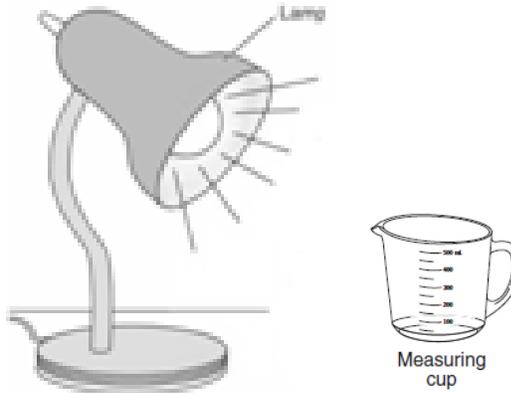
For Level 3, the lists generated about the container must include several observations.

For Level 1, the containers should be identical; however, markings are not necessary.

container of water will either be placed in the sun for several hours or heated –

The focus of this task is to recognize that the amount of water will decrease when heated. It will be important to provide enough heat over time to allow this change to occur (evaporation) and be observable to the student. Here are ways for the teacher to safely heat the water:

- Placing the water in direct sunlight for several hours
- Heating the water on a hot plate or other heat source
Note: When heating the water, the teacher should follow and model good safety practices. These practices should include: never leaving the heat source unattended and using heat –resistant gloves when handling hot containers.
- Placing the water directly under a hot lamp for several hours



STAAR Reporting Category 1 – Matter and Energy: The student will demonstrate an understanding of the properties of matter and energy and their interactions.

<p>TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations</p>	<p>Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations</p>
<p>(5.5) Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to</p> <ul style="list-style-type: none"> (A) classify matter based on physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy; Readiness Standard (B) identify the boiling and freezing/melting points of water on the Celsius scale; Supporting Standard (C) demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand; Supporting Standard (D) identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water. Supporting Standard <p>(3.5) Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to</p> <ul style="list-style-type: none"> (C) predict, observe, and record changes in the state of matter caused by heating or cooling. Supporting Standard 	<p>Essence Statement A: Identifies and classifies matter by its physical properties and determines how matter is changed.</p>

Level 3

Prerequisite skill: compare changes in materials caused by heating and cooling

The student will be presented two identical containers of frozen water with measurement markings on the side of the container. Each container will be filled with the same amount of water. The student will generate a list of observations about the containers of frozen water. One of the containers of frozen water will be put back in the freezer and the other will be left out to thaw. The student will generate a list of observations about the frozen water in the container as it thaws throughout the day. Using the lists and the two containers, the student will generate a conclusion about the changes in the water.

Predetermined Criteria

1. The student will generate a list of observations about the containers of frozen water.
2. The student will generate a list of observations about the frozen water in the container as it thaws throughout the day.
3. The student will generate a conclusion about the changes in the water.

Process skill: communicate observations and justify explanations using student-generated data from simple descriptive investigations

Level 2

Prerequisite skill: predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating

The student will be presented two identical containers with measurement markings on the side of each container. Each container will be filled with the same amount of water. The student will examine the water level in the two containers. The water levels will be recorded. One container will be left alone, and the other container of water will either be placed in the sun for several hours or heated. After a period of time, the container which was heated will be placed next to the other container. The student will identify the water level for each container. The water levels will be recorded. The student will identify the difference in the amount of water in the two containers. The student will identify the factor that caused the change.

Predetermined Criteria

1. The student will identify the water level for each container.
2. The student will identify the difference in the amount of water in the two containers.
3. The student will identify the factor that caused the change.

Process skill: collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools

Science Grade 5; Reporting Category 1 (5.5); Essence Statement: A

Level 1

Prerequisite skill: describe, observe, and investigate properties and characteristics of common objects

The student will participate in filling a container with tap water and removing a container of frozen water from the freezer. The student will experience the tap water. The student will respond to the frozen water.

Predetermined Criteria

1. The student will participate in filling a container with tap water and removing a container of frozen water from the freezer.
2. The student will experience the tap water.
3. The student will respond to the frozen water.

Definitions/Examples for STAAR Reporting Category 2 (5.6, 3.6) Essence Statement B

The following definitions clarify terms used in the grade 5 science assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Levels 3, 2, and 1: pages 9 and 10

magnets used in everyday life – practical uses of magnets in day to day living

- Examples of magnets in everyday life include:
 - On an electric can opener to hold the lid of the can while opening
 - Bottom of a shower curtain liner to keep the curtain attached to the bathtub
 - Holding things together such as paper and notes to a refrigerator door

objects attracted to a magnet – any object or material that pulls the object or material toward the magnet. Magnets attract certain kinds of metal such as iron and steel.

- Objects attracted to a magnet would include a metal paper clip, steel cylinder, and an iron nail.
- Objects that would NOT be attracted to a magnet would include a paper napkin, rubber eraser, plastic ruler, and a wooden pencil.

For Level 3, the generated list must include several observations.

Reporting Category 2 – Force, Motion, and Energy: The student will demonstrate an understanding of force, motion, and energy and their relationships.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to</p> <ul style="list-style-type: none"> (A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy; Readiness Standard (B) demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound; Readiness Standard (C) demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces and refracted such as the appearance of an object when observed through water; Readiness Standard (D) design an experiment that tests the effect of force on an object. Supporting Standard <p>(3.6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms. The student is expected to</p> <ul style="list-style-type: none"> (B) demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons. Supporting Standard 	<p>Essence Statement B: Recognizes force, motion, and energy and their relationships.</p>

Level 3

Prerequisite skill: observe and identify how magnets are used in everyday life

The student will be presented a magnet to use for an investigation. The student will locate three objects in his or her environment that are attracted to a magnet and three objects that are not. The student will generate a list of observations resulting from the investigation. Using reference materials, the student will determine one way magnets can be used in everyday life.

Predetermined Criteria

1. The student will locate three objects in his or her environment that are attracted to a magnet and three objects that are not.
2. The student will generate a list of observations resulting from the investigation.
3. The student will determine one way magnets can be used in everyday life.

Process skill: collect, record, and compare information using tools, including computers, hand lenses, rulers, primary balances, plastic beakers, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and stopwatches; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums

Level 2

Prerequisite skill: predict and describe how a magnet can be used to push or pull an object

The student will be presented a magnet and objects, some of which are attracted to a magnet and some of which are not. The student will identify objects that can be moved with magnetic force. The student will identify the common characteristic of the objects that were moved by the magnet. The student will be presented three new objects. The student will identify the object that can be moved by a magnet after considering the characteristics of the new objects.

Predetermined Criteria

1. The student will identify objects that can be moved with magnetic force.
2. The student will identify the common characteristic of the objects that were moved by the magnet.
3. The student will identify the object that can be moved by a magnet after considering the characteristics of the new objects.

Process skill: collect, collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and timers; non-standard measuring items such as paper clips and clothespins; weather instruments such as classroom demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums

Level 1

Prerequisite skill: explore interactions between magnets and various materials

Two objects will be placed in front of the student. One object will be attracted to a magnet, and one object will not be attracted to a magnet. The student will explore the two objects. The student will participate in using a magnet to attempt to move each object. The student will respond to the object that was moved by the magnet.

Predetermined Criteria

1. The student will explore two objects.
2. The student will participate in using a magnet to attempt to move each object.
3. The student will respond to the object that was moved by the magnet.

Definitions/Examples for STAAR Reporting Category 3 (5.7, 4.7) Essence Statement C

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Level 3: page 13

ways rocks, soil, and water help make useful products – specific ways that these natural resources are used to create products used by humans

- Examples include:
 - Rocks are used in making stone, brick, and concrete. These materials are then used in constructing homes, buildings, and roads.
 - Soil is used in building materials, beauty products, and pottery.
 - Water is used in making food products, cleaning products, and irrigating crops.

STAAR Reporting Category 3 – Earth and Space: The student will demonstrate an understanding of components, cycles, patterns, and natural events of Earth and space systems.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.7) Earth and space. The student knows Earth’s surface is constantly changing and consists of useful resources. The student is expected to</p> <ul style="list-style-type: none"> (A) explore the processes that led to the formation of sedimentary rocks and fossil fuels; Readiness Standard (B) recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth’s surface by wind, water, and ice; Readiness Standard (C) identify alternative energy resources such as wind, solar, hydroelectric, geothermal, and biofuels; Readiness Standard (D) identify fossils as evidence of past living organisms and the nature of the environments at the time using models. Supporting Standard <p>(4.7) Earth and space. The student knows that Earth consists of useful resources and its surface is constantly changing. The student is expected to</p> <ul style="list-style-type: none"> (A) examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants; Supporting Standard (C) identify and classify Earth’s renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation. Supporting Standard 	<p>Essence Statement C: Knows that Earth’s surface is constantly changing and consists of useful resources.</p>

<p>(3.7) Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to</p> <p>(B) investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides. Supporting Standard</p>	
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Level 3

Prerequisite skill: gather evidence of how rocks, soil, and water help to make useful products

The student will be presented a wide array of reference materials. Using the reference materials, the student will locate ways in which rocks, soil, or water help to make useful products. The student will record the information. The student will conclude why the natural resource needs to be protected.

Predetermined Criteria

1. The student will locate ways in which rocks, soil, or water help to make useful products.
2. The student will record the information.
3. The student will conclude why the natural resource needs to be protected.

Process skill: identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals

Level 2

Prerequisite skill: give examples of ways rocks, soil, and water are useful

The student will identify places where soil and water are located. The student will identify one way soil is used. The student will identify one way water is used.

Predetermined Criteria

1. The student will identify places where soil and water are located.
2. The student will identify one way soil is used.
3. The student will identify one way water is used.

Process skill: communicate observations with others about simple descriptive investigations

Level 1

Prerequisite skill: identify, compare, discuss earth materials, and their properties and uses

The student will be presented a plant potted in dry soil. The student will explore the dry soil of the plant. The student will participate in watering the plant. The student will respond to the wet soil.

Predetermined Criteria

1. The student will explore the dry soil of the plant.
2. The student will participate in watering the plant.
3. The student will respond to the wet soil.

Transition

Definitions/Examples for STAAR Reporting Category 4 (5.10, 3.10) Essence Statement D

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Levels 3, 2, and 1: pages 18 and 19

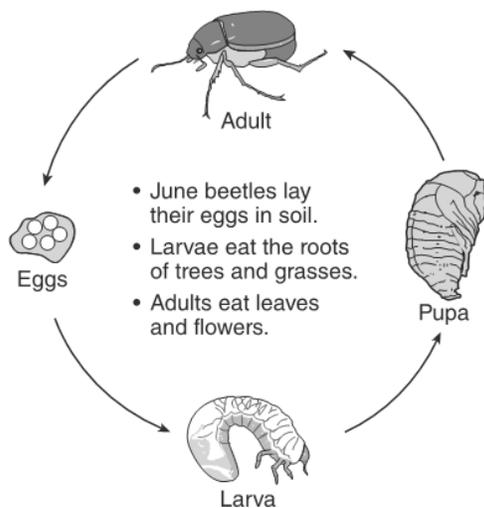
life cycle – The series of changes (stages) in the growth and development of an organism from its beginning as a life form to its mature state in which offspring are produced; and then the cycle begins again.

Level 3: page 18

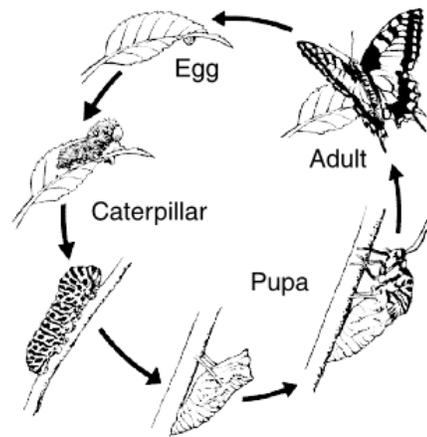
life cycle of an insect – The Level 3 assessment task is specifically about a life cycle of an insect. In Predetermined Criteria 1, it will be important to remember that the task requires a fact about **each** stage in the insect life cycle.

- Butterflies, beetles, flies, bees, spiders, and wasps are examples of insects.
- Purposes for structures in adult phases might be: the antennae on a beetle enable it to feel out its environment and target food; the wings on an adult butterfly enable it to move about for food, shelter, and find a mate; and the hard shell-like covering on a ladybug protects its delicate wings and also protects it from predators.

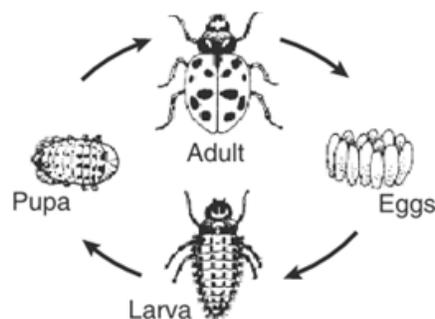
June Beetle Life Cycle



Life Cycle of a Butterfly



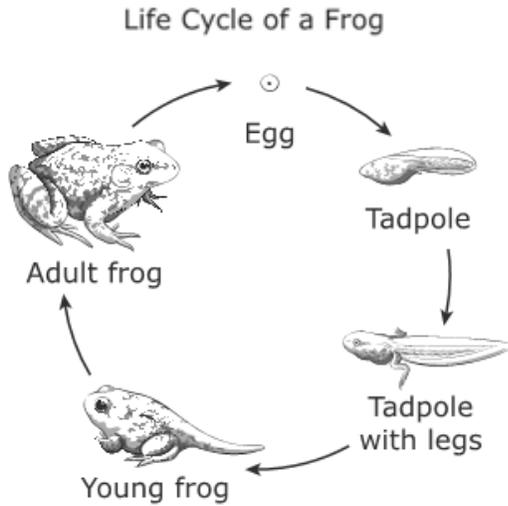
Ladybug Life Cycle



Level 2: page 18

life cycle of an animal – In the Level 2 assessment task, the student is asked to identify the first and last stages of an animal’s life cycle. The first stage will correspond to the beginning stage and the last stage will correspond to the adult stage.

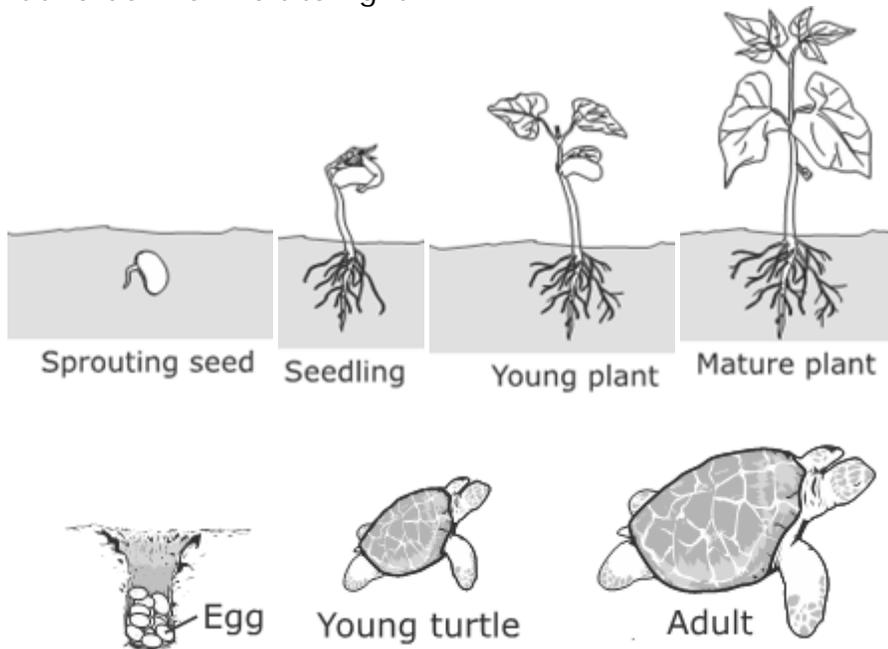
- See examples of a frog and chicken life cycle below:



Level 1: page 19

life cycle of an organism – The Level 1 assessment task focuses on first (beginning) and last (adult) stages of an organism and a structural change in the last stage. Organisms are living things, such as plants and animals, including people.

- Examples could include people (baby, child, adult), a plant or turtle as shown below. It would be appropriate to present the representations of the life cycle stages in sequential order from left to right.



STAAR Reporting Category 4 – Organisms and Environments: The student will demonstrate an understanding of the structures and functions of living organisms and their interdependence on each other and on their environment.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.10) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to</p> <ul style="list-style-type: none"> (A) compare the structures and functions of different species that help them live and survive such as hooves on prairie animals or webbed feet in aquatic animals; Readiness Standard (B) differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle; Readiness Standard (C) describe the differences between complete and incomplete metamorphosis of insects. Supporting Standard <p>(3.10) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to</p> <ul style="list-style-type: none"> (C) investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady bugs. Supporting Standard 	<p>Essence Statement D: Knows that organisms undergo life processes and have structures that help them survive within their environments.</p>

Level 3

Prerequisite skill: investigate and record some of the unique stages that insects undergo during their life cycle

The student will be presented reference materials depicting the life cycle of a specific insect. The student will determine a fact about each stage which will be recorded and presented randomly to the student. The student will organize the stages in sequential order. The student will determine a purpose for one of the structures evident in the insect's adult stage.

Predetermined Criteria

1. The student will determine a fact about each stage.
2. The student will organize the stages in sequential order.
3. The student will determine a purpose for one of the structures evident in the insect's adult stage.

Process skill: record and organize data using pictures, numbers, and words

Level 2

Prerequisite skill: observe and record life cycles of animals such as a chicken, frog, or fish

The student will be presented pictures or representations of the stages in the life cycle of an animal in random order. The student will match a picture or representation of each life cycle stage to a description of each stage presented in random order. The student will identify the first and last stage of the life cycle. The teacher will add the remaining stages to complete the sequential order. The student will identify a difference in the animal's appearance between the first stage and the last stage.

Predetermined Criteria

1. The student will match a picture or representation of each life cycle stage to a description of each stage presented in random order.
2. The student will identify the first and last stage of the life cycle.
3. The student will identify a difference in the animal's appearance between the first stage and the last stage.

Process skill: record and organize data using pictures, numbers, and words

Level 1

Prerequisite skill: describe life cycles of organisms

The student will be presented representations of life cycle stages of an organism focusing on a structural change from the first stage to the last stage. The student will explore the representations. The student will acknowledge the first stage of the organism. The student will respond to the structural change in the last stage.

Predetermined Criteria

1. The student will explore the representations.
2. The student will acknowledge the first stage of the organism.
3. The student will respond to the structural change in the last stage.