

Task Specific Change in Materials/Approach from Instruction to Assessment: Science

In order to provide more rigor as required by Texas legislation, the materials used in STAAR Alternate assessment observations must be different than those used during instruction. The materials must vary enough from instruction so that the student is not just rotely repeating an answer or response from a previous instructional session without truly demonstrating the skill. The changes in materials, therefore, should be related to the content being measured. During the assessment observation a student must provide a different answer to the predetermined criterion or respond to a different experience in the predetermined criterion than was observed during instruction. Because some tasks and predetermined criteria are written specifically for a certain skill, teachers need to plan instruction and assessments in advance to ensure a change in materials is made. For example, when specific skills are to be assessed, it may be necessary to introduce and teach similar skills during instruction so that the content of the assessment observation is not compromised.

Instruction is critical since an assessment observation only reflects the skill acquisition that occurred during the instructional process. The assessment tasks have to be presented as written and cannot be changed, thus maintaining the standardization quality of STAAR Alternate. A student's performance can only be considered valid if the assessment task has not been previously practiced in the exact way that it was designed. Therefore, teachers must review the assessment tasks prior to beginning instruction to ensure the task is not duplicated, which will compromise the authentic response required during the assessment observation. Teachers are required to approach teaching sessions differently than assessment observations. The change in approach may vary from assessment task to assessment task.

Question to ask yourself: What is the best way for the skills/concepts in the assessment task to be addressed during instruction?			
Answers:			
As the skill naturally occurs	In separate lessons	With new items only	In a different presentation

The information on the following page provides guidance on the instruction for the assessment task that should occur before the observation. The change in materials must maintain the complexity level of the task and result in a new experience or a different answer than is requested in the assessment observation.

Instructional Focus				
	Natural Occurrences	Separate Lessons	New Items*	Different Presentations
Skill/Concept	<ul style="list-style-type: none"> Broadly addressed as the skill/concept naturally occurs Exposure to numerous experiences showing how the skill/concept relates to the student 	<ul style="list-style-type: none"> Specifically taught in isolation of other skills due to the complexity of the skill/concept Requires the use of new items presented in the same way as in the predetermined criteria 	<ul style="list-style-type: none"> Specifically taught with new items * 	<ul style="list-style-type: none"> Overall skill or concept taught but in a way that is different than that of the assessment task
Predetermined criteria	<ul style="list-style-type: none"> Not specifically addressed during instruction since the opportunity to emphasize the skill/concept frequently occurs 	<ul style="list-style-type: none"> Each predetermined criterion is addressed in isolation of the other predetermined criterion since each skill/concept must be learned individually as a separate skill/concept before being demonstrated together Each predetermined criterion becomes a single, separate lesson which can occur over numerous days 	<ul style="list-style-type: none"> Each predetermined criterion is addressed in the same way as in the assessment task All predetermined criteria are addressed together during a single lesson since the skill is often a process that cannot be completed until all three criteria are performed 	<ul style="list-style-type: none"> Not specifically addressed during instruction since the predetermined criteria are often very specific Repeating the predetermined criteria during instruction exactly as written in the task would compromise the assessment observation
Entire assessment task	<ul style="list-style-type: none"> Not presented as written during instruction – presented for the first time as an entire task during the assessment observation 	<ul style="list-style-type: none"> Not presented as written during instruction – becomes a culminating activity for the first time as an entire task during the assessment observation 	<ul style="list-style-type: none"> Presented as written during instruction – instruction and assessment observation are exactly mirrored with the exception of the items 	<ul style="list-style-type: none"> Not presented as written during instruction – presented for the first time during the assessment observation

* The term “item” refers to materials as well as to specific examples or problems presented in a task. An “item” refers to, but is not limited to, the following examples: consonant letter, word, paragraph, text, topic, equation, geometric figure, graph, quantity, journal entry, map, act of a good citizen, geographic feature, investigation, characteristic of a habitat, and a basic need.

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Natural Occurrences 	Separate Lessons 	New Items 	Different Presentations 
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Grade/Subject	Rep Cat/K&S	Level	Skill Focus	Code	Description of Instruction	Assessment Task Summary
Essence Statement A: Identifies and classifies matter by its physical properties and determines how matter is changed						
5/Science	1/5.5	3	Change in matter		Provide investigations and make observations involving matter that changes form when heated or cooled	Given two identical containers with the same amount of frozen water with measurement markings on the side (one to be left out to thaw and the other to be placed back in the freezer): generate a list of observations for the frozen water, generate a list of observations for the thawing frozen water, generate a conclusion about the changes in the water
5/Science	1/5.5	2	Change in matter		Provide investigations with matter that change forms when heated or cooled	Given two identical containers with measurement markings on the side of each container and filled with the same amount of water for the student to examine and to be recorded (one to be left alone and the other container to be placed in the sun or heated): identify the water level of the two containers after a given time period, identify the differences in the amount of water in the two containers, identify the factor that caused the change
5/Science	1/5.5	1	Change in matter		Expose to forms of matter found in everyday situations	Participate in filling a container with tap water and removing a container of frozen water from the freezer, experience the tap water, respond to the frozen water
Essence Statement B: Recognizes force, motion, and energy and their relationships						
5/Science	2/5.6	3	Force and use of magnets		Provide experiences with magnets and how they may be used in everyday life	Given a magnet to use for an investigation: locate three objects in his or her environment that are attracted to a magnet and three objects that are not, generate a list of observations resulting from the investigation, determine one way in which magnets are used in real life
5/Science	2/5.6	2	Magnetic force		Provide experiences with magnets that involve moving of objects	Given a magnet and objects (some of which are attracted to a magnet and some which are not): identify objects that can be moved with magnetic force, identify the common characteristic of the objects that were moved by a magnet, identify a new object that can be moved with a magnet
5/Science	2/5.6	1	Magnetic force		Use new objects with different properties	Explore two objects (one that can be attracted to a magnet and one that cannot), participate in using a magnet to attempt to move each object, respond to the object that was moved by the magnet

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Grade/ Subject	Rep Cat/ K&S	Level	Skill Focus	Code	Description of Instruction	Assessment Task Summary
Essence Statement C: Knows that Earth's surface is constantly changing and consists of useful resources						
5/Science	3/5.7	3	Use of natural resources		Provide instruction on natural resources and researching topics	Given a wide array of reference materials: locate ways in which rocks, soil, or water help make useful products, record the information, conclude why the natural resource needs to be protected
5/Science	3/5.7	2	Use of natural resources		Expose to different school locations and uses of soil and water as they are naturally encountered in the school environment	Identify places where soil and water are located, identify one way soil is used, identify one way water is used
5/Science	3/5.7	1	Use of natural resources		Expose to numerous experiences with plants and wet and dry items	Given a plant potted in dry soil: explore the dry soil of the plant, participate in watering the plant, respond to the wet soil
Essence Statement D: Knows that organisms undergo life processes and have structures that help them survive within their environments						
5/Science	4/5.10	3	Life cycles of organisms		Use new organisms with different structures and life cycle stages	Given reference materials depicting the life cycle of a specific insect: determine a fact about each stage which will be recorded and presented randomly to the student, organize the stages in sequential order, determine a purpose for one of the structures evident in the insect's adult stage
5/Science	4/5.10	2	Life cycles of organisms		Use new organism with different structures and life cycle stages	Given pictures or representations of the stages in the life cycle of an animal in random order: match a picture or representation of each stage in the life cycle to a description of each stage, identify the first and last stage of the life cycle, identify a difference in the animal's appearance between the first stage and the last stage after all the stages have been placed in sequential order
5/Science	4/5.10	1	Life cycles of organisms		Use a new organism with different structures	Given representations of life cycle stages of an organism focusing on a structural change from the first stage to the last stage: explore the representations, acknowledge the first stage of the organism, respond to the structural change in the last stage

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Essence Statement A: Recognizes the physical and chemical properties and changes of matter and how physical properties are used for classification						
8/Science	1/7.6	3	Physical properties of matter		Provide instruction on properties of matter and how to conduct, record, and interpret information obtained from investigations	Given a collection of objects consisting of different physical properties, a container of water, and a labeled chart (columns labeled with the name of the objects and the rows labeled as "Sink," "Float," "Dissolve," "Not Dissolve," "Maintained State of Matter," and "Changed State of Matter"): record the physical properties for each object on the chart after placing it in the container of water, compare the physical properties of the objects based on information recorded on the chart, generate a conclusion about the objects
8/Science	1/7.6	2	Physical properties of matter		Provide instruction on properties of matter for properties other than buoyancy	Given randomly presented objects, some that float all made with the same material and some that sink all made with the same material: identify whether each object floats or sinks when placed in water, identify a physical property that is common to the objects that sink and to those that float, identify another object that has the same physical property of the objects that float and another object that has the same physical property of the objects that sink
8/Science	1/7.6	1	Physical properties of matter		Expose to objects and emphasize when objects sink and float in routine activities	Given two objects, one that sinks and one that floats: explore the objects, participate in investigating whether the objects sink or float, respond to the object that floats
Essence Statement B: Recognizes the relationship between force and work						
8/Science	2/7.7	3	Force and work		Provide experiences moving different objects in different ways requiring different levels of force	Given a two-wheeled weighted carrier to be used in an investigation to measure the effect of friction on moving objects: locate different types of surfaces, record his or her observations after the carrier is pulled over each surface, generate a conclusion based on the data
8/Science	2/7.7	2	Force and work		Provide experiences moving different objects in different ways requiring different levels of force	Given an inclined plane and four objects, two of which roll and two of which slide: assist in applying force to move the objects down the inclined plane, identify how much force he or she applied to get the object to the end of the plane, identify the physical property that resulted in less force being needed
8/Science	2/7.7	1	Force and work		Expose to moving different objects in different ways requiring different levels of force as they are encountered in the course of the day	Given an object placed in front of the student: participate in moving the object in different ways, respond to the change in movement, anticipate the continuation of the movement

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Natural Occurrences	★	Separate Lessons	▲	New Items	●	Different Presentations	■
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Essence Statement C: Recognizes that natural events affect Earth's systems						
8/Science	3/8.9	3	Weather patterns	▲	Instruct on and evaluate weather information using different weather maps, determine the impact of different kinds of weather, and the effects of weather on individuals	Given a United States weather map: locate two places on the map with significantly different temperatures, compare the temperature and precipitation in both places for the same three-day period, determine how to prepare for the weather at each location
8/Science	3/8.9	2	Weather patterns	▲	Instruct on weather conditions, graphing, and the effects of weather on individuals	Given a seven-day weather forecast that shows a clear pattern for one weather condition: assist in graphing the weather condition for the seven days, identify the weather pattern, choose an article of clothing appropriate for the forecasted weather
8/Science	3/8.9	1	Weather patterns	★	Expose to the changes in weather as they are encountered in the course of a few days	Given sensory input representing weather conditions for a three-day period in which the weather is the same the first two days and changes on the third day: experience the sensory input for the first day's weather condition, acknowledge the sensory input for the second day's weather condition, respond to the change in the third day's weather condition
Essence Statement D: Recognizes the interdependence of organisms with each other and with their environment						
8/Science	4/8.11	3	Organisms and environments: adaptations	■	Provide exposure to different environments, animals, and characteristics	Generate a list of different environments, classify representations of animals presented in a wide array according to the environments in which the animals live, determine a common characteristic that allows the animals in each group to survive in their environment
8/Science	4/8.11	2	Organisms and environments: adaptations	●	Use different animals and different environments	Given an animal or a representation of an animal in its natural environment: examine the animal and its environment, identify a physical characteristic of the animal, identify one way the characteristic helps the animal live in its environment
8/Science	4/8.11	1	Organisms and environments: adaptations	●	Use different animals and different environments	Given an animal or representation of the animal in its natural environment: acknowledge the environment of the animal, explore a characteristic of the animal, participate in simulating how the characteristic helps the animal

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Essence Statement A: Knows that all living things are composed of cells that perform specific functions and that viruses are different from cells						
Biology	1/4	3	Organisms and environments: adaptations		Use new organisms with different structures to survive in the environment	Given a structure made of cells that enables organisms to survive in their environments: conduct research about the specific structure, determine how the structure differs among different organisms, determine why the structure differs among the organisms
Biology	1/4	2	Organisms and environments: adaptations		Use new animals or representations of animals with different physical characteristics for meeting basic needs	Given an animal or a representation of an animal: identify the basic needs of all animals, identify four of the animal's physical characteristics or behaviors, match each physical characteristic or behavior to a basic need
Biology	1/4	1	Organisms and environments: adaptations		Use new organisms with different structures used to survive in the environment	Given three organisms or representations of organisms presented one at a time (two with the same physical characteristic for meeting a basic need and one that has a significantly different physical characteristic for meeting the same basic need): acknowledge the characteristic for the first organism, participate in pairing the first and second organisms to show the common physical characteristic, respond to the different physical characteristic of the third organism
Essence Statement B: Recognizes that the structure of DNA determines the inherited traits in organisms						
Biology	2/6	3	Inherited traits and learned behaviors		Provide instruction on inherited traits and learned behaviors	Generate a list of inherited traits, generate a list of learned behaviors, generate an example of an inherited trait and a learned behavior for himself or herself
Biology	2/6	2	Inherited traits and learned behaviors		Provide instruction on inherited traits and learned behaviors and using a T-chart for other purposes	Given representations of inherited traits and learned behaviors: identify the definitions for "inherited traits" and "learned behaviors" that will be recorded as labels on a T-chart, sort the representations into the appropriate columns in the T-chart, answer a question about one of his or her learned behaviors
Biology	2/6	1	Inherited traits		Use new inherited traits and different animals	Given two identical representations of an inherited trait and representations of a young animal and the parent: participate in pairing the inherited trait to the location of the trait on the parent and the young animal, participate in pairing the young animal to the parent, respond to the inherited trait on both animals

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Essence Statement C: Knows that taxonomy is used to classify organisms based on shared characteristics						
Biology	3/8	3	Classification of organisms by kingdom		Provide instruction on the kingdoms and examples of organisms that make up each kingdom	Given reference materials: generate a list of two characteristics each for the plant, animal, and fungus kingdoms; determine examples of organisms for each of the kingdoms; compare the kingdoms
Biology	3/8	2	Classification of plants by characteristics		Provide instruction on the differences and similarities between plants and animals and the function of plant parts	Given examples of plants: identify the shared characteristics of plants, identify at least three parts that help the plant meet its basic needs, identify the function of each part
Biology	3/8	1	Plant characteristics		Expose to plant parts as opportunities arise in the natural environment	Given two unpotted plants with different shaped leaves, stems, or roots: acknowledge the leaves, stems, and roots of the first plant and then the same parts on the second plant, participate in pairing the leaves, stems, and roots of the first plant to those of the second plant, participate in placing the plants in soil and watering them
Essence Statement D: Knows that biological systems have functions and interact						
Biology	4/10	3	Human body		Provide information on human body system parts and functions and causes for physical changes involving organs	Record observations of heart rate, breathing rate, and other physical changes for an individual at rest and after a period of exercise, generate a conclusion based on the data, determine which human body system is involved for one of the observations
Biology	4/10	2	Human body		Provide information on organs within human body systems and needs of the body	Given an experience where the student exercises or observes another individual exercising: identify the body's reaction to exercise, identify which organs are affected by the exercise, identify what the body needs as a result of the physical demands of the exercise
Biology	4/10	1	Human body		Expose to examples of the need for water and the use of water to satisfy the need as it naturally occurs within the school environment	Acknowledge a person who is thirsty after physical activity, participate in providing water to the person, respond to the person drinking the water