Extended Assessment

Alternate Achievements Standards: Science



Oregon Department of Education

Achievement Level Descriptors: Overview

Oregon's Alternate Achievement Standards describe what students know and can do based on their performance on the state's alternate assessments in the various content areas. These Descriptors may be used by educators to target instruction and inform parents and students of the range of expectations for students with significant cognitive disabilities to be considered proficient at a particular grade level.

The Alternate Achievement Standards are based on a sampling of a larger set of content outlined in the Oregon Content Standards. Results for individual students are only one indicator of student ability as measured at the time of testing. These statements give a general description of what most students know and can do within a particular band of achievement based on a particular subset of content aligned to the general content standards but reduced in depth, breadth, and complexity. Students who score at or within a particular level of achievement possess the bulk of the abilities described at that level.

The Alternate Achievement Level Descriptors (ALD) for each subject area were developed to parallel the Achievement Level Descriptors for the general education population while capturing an alternate set of expectations based on grade level content that has systematically been reduced in depth, breadth, and complexity. Category descriptions align to those used in the general education population: Level 1-Level 4. Expectations for this population reflect the state's commitment to holding all students to high standards of academic achievement.

The Alternate Achievement Level Descriptors do not represent academic expectations that are identical to the general Achievement Level Descriptors. While the state's general Achievement Level Descriptors refer and align to the grade level content standards directly, the Alternate Achievement Level Descriptors refer to the state's grade level content that is reduced in depth, breadth, and complexity via a process (i.e., essentialization) incorporated at the assessment development level.

Level expectations were developed by specialists at the department and were modeled on the format, language structure, and design of the general Achievement Level Descriptors. The draft ALDs were circulated for initial review of structure, form, and essence. These edited ALDs were incorporated for a thorough review by educators in conjunction with the standard setting session for the state's alternate assessment. In this session, educators familiar with the content expectations of this population (these individuals are described in the Standard Setting Report) were given authorship responsibility for the draft ALDs and invited to recommend content changes that adequately captured the expectations associated with each of the described categories (Level 1 – Level 4). During this level of the review,

NOTE: All Alternate Achievement Level Descriptors assume that student curriculum and assessment is based on content standards that have been reduced in depth, breadth, and complexity. For Parents: Because your child has a significant cognitive disability, he or she was given a specially designed test called the EXTENDED ASSESSMENT that was created for students with similar disabilities. This means that these test results cannot be used to compare your child's performance to that of students who are taking the General OAKS assessment and who are in the same enrolled grade.

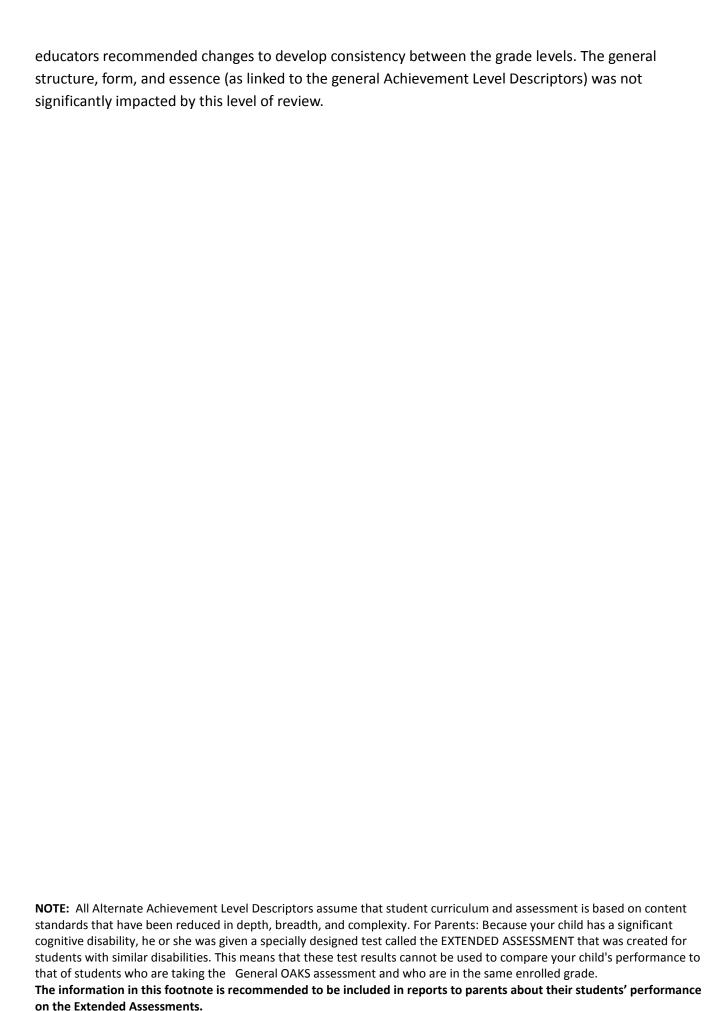


TABLE I: CATEGORY DESCRIPTIONS

Category*	Description
Level 4	Students demonstrate exceptional knowledge and skills related to essentialized standards that exceed the requirements for proficiency .
Level 3	Students demonstrate adept knowledge and skills related to essentialized standards that meet proficiency .
Level 2	Students demonstrate inconsistent or partial mastery of knowledge and skills related to essentialized standards that do not meet proficiency.
Level 1	Students demonstrate limited to no mastery of knowledge and skills related to essentialized standards that do not meet proficiency .

^{*}The labels for the various Levels have not been determined as of July 8, 2015.

TABLE 2: SCIENCE

Ranges of Scale Scores by Category

Grade	Level 1	Level 2	Level 3	Level 4
5	505 or below	506 - 516	517 - 529	530 or above
8	809 or below	810 - 819	820 - 830	831 or above
11	900 or below	901 - 913	914 - 928	929 or above

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Alternate Achievement Level Descriptors: Science

The Alternate Achievement Level Descriptors reflect expectations for students with the most significant cognitive disabilities as reflected by performance on academic assessments that are reduced in depth, breadth, and complexity (*Oregon's Extended Assessments).

*Oregon's Extended Assessments are created by linking assessment items to the state's grade level content standards while reducing the assessed content (i.e., essentialization) in depth, breadth, and complexity. Reduced depth, breadth, and complexity items reflect simplified grammatical structures, simplified vocabulary, shortened length (reduced wordiness), increased inclusion of and reference to prerequisite skills, and increased scaffolding and support.

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SCIENCE

FIFTH GRADE SCIENCE

Achievement Level Descriptors (ALDs)

General and Content-Specific Policy ALDs

	Level 1	Level 2	Level 3	Level 4
General Policy Definitions	Students demonstrate	Students demonstrate	Students demonstrate	Students demonstrate
	limited to no mastery of	inconsistent or partial	adept knowledge and skills	exceptional knowledge
	knowledge and skills	mastery of knowledge and	related to essentialized	and skills related to
	related to essentialized	skills related to	standards that meet	essentialized standards
	standards that do not meet	essentialized standards	proficiency.	that exceed the
	proficiency.	that do not meet		requirements for
		proficiency.		proficiency.
Content-Specific Policy	Performance indicates that	Performance indicates an	Performance indicates	Performance indicates
Definitions: Science	the student has limited to	inconsistent or partial	consistent understanding	superior understanding of
	no understanding of	understanding of academic	of academic concepts	academic concepts aligned
	academic concepts aligned	concepts aligned to	aligned to essentialized	to essentialized standards.
	to essentialized standards.	essentialized standards.	standards.	

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Grade 5 Science ALDs

		Level 1	Level 2	Level 3	Level 4
Content	Domain	In grade level content	In grade level content	In grade level content	In grade level content
Area		reduced in depth, breadth,	reduced in depth, breadth,	reduced in depth, breadth,	reduced in depth, breadth,
		and complexity, the	and complexity, student	and complexity, student	and complexity, student
		student demonstrates	demonstrates inconsistent	demonstrates proficient	demonstrates superior
		limited to no performance	or partial performance	performance when	proficient performance
		when presented with	when presented with	presented with items that	when presented with
		items that ask them to:	items that ask them to:	ask them to:	items that ask them to:
Science	Matter and Its Interactions	Recognize that common objects, animals and plants are made of different parts.	Identify the parts of large common and inanimate objects with easily recognizable smaller parts.	Identify the parts of a wider variety of common inanimate objects and living organisms.	 Identify more complex parts of common inanimate objects and living organisms including those that are too small to be seen with the naked eye.
		Measure the weight of common objects.	Measure the weight/mass of common objects in various phases of matter using pictures of the objects.	Measure and/or compare the weight/mass of common objects in various phases of matter using pictures of the objects, including choosing the correct tool.	Measure and/or compare the weight/mass of common objects in various phases of matter using graphs and associated data.

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	Identify physical properties of common matter.	Identify and measure the physical properties of matter, including the size and shape of common objects.	• Identify and measure the physical properties of matter, including size, shape, hardness and softness, and the mass of objects.	• Identify and measure the physical properties of matter, including size, shape, hardness and softness, mass, and volume through the use of graphs and pictures of matter in different phases.
	Recognize when common substances are mixed together.	 Recognize two solids mixed together that do not form a new substance. 	Recognize one solid and one liquid mixed together that does not form a new substance.	 Recognize one solid and one liquid, two liquids, or two gasses that when mixed form a new substance.
Motion and Stability: Forces and Inter-actions	Recognize that common objects move when dropped.	Recognize or identify the direction common objects will fall when dropped.	Recognize that gravity makes objects fall downward on Earth.	Recognize that gravity makes objects fall downward, incorporating more abstract diagrams of the Earth and Moon.

E	Energy	Recognize that the Sun provides light and heat.	Recognize that the Sun (compared to other space and non-space objects) gives the vast majority of light and heat energy to the Earth.	 Recognize that the Sun gives light and heat energy to living organisms on Earth for survival. 	• Recognize that the Sun gives light and heat energy to plants and animals on Earth, which provide humans with energy for survival, body repair, growth and motion.
N C S	From Molecules to Organ-isms: Structures and Processes	Recognize that plants need light, air, and water.	Recognize that plants need light, air, and water to grow compared to things that would obviously not help growth.	Recognize that plants need light, air, and water to grow, examining how a plant will grow when given different amounts of these substances.	 Recognize that plants need light, air, and water to grow, comparing the potential or actual growth of different plants when given different amounts of these substances.
Ir E	Eco-systems: nter-actions, Energy, and Dynamics	Recognize or identify common living organisms.	Identify which are an animal, plant and decomposer using common terminology and organisms.	• Identify that animals must eat food and drink water to survive, and that plants need materials in soil, air and water to survive compared to common things they don't need.	• Identify that animals must eat food and drink water to survive, and that plants need materials in soil, air and water to survive, including where such things come from.

Earth's Place in the Universe	 Recognize that the Sun shines and is bright. 	 Recognize that the Sun is brighter than other common objects on Earth that do not shine on their own. 	 Recognize that the Sun is brighter than other objects in the sky and in space that are not as bright. 	Recognize that the Sun is brighter than other stars in space because it is closer to the Earth.
	Recognize day and night.	Recognize the difference between day and night, including that shadows typically happen during the daytime.	Recognize the appropriate size, direction and shape of shadows based on the position of Sun in simple pictures and diagrams.	Recognize the relative amount of sunlight in different circumstances and the portion of the Earth that is day/night using simple pictures and diagrams.
Earth's Systems	Recognize common parts of the Earth.	Identify common living organisms of Earth's biosphere, including plants and animals, without specifically naming them.	• Identify nonliving features, restricted to: ponds, lakes, rivers, streams and oceans (hydrosphere), rocks, mountains, volcanoes, canyons (geosphere), and air, clouds and fog (atmosphere).	Identify simple interactions among common Earth systems.

	Recognize common Earth features made of water.	Identify Earth features that are made of water compared to common objects that are not	Identify Earth features that are made of water compared to other natural features that are	 Identify and compare the relative amounts of water in features of the hydrosphere using
		made of water.	not made of water.	diagrams and graphs.
Earth and Human Activity	Recognize common activities that impact the environment.	Identify activities that pollute and harm the planet compared to activities that obviously do not.	Identify simple and common ways to protect and help the Earth compared to common and unrelated activities.	Identify simple and common ways to protect and help the Earth compared to activities that pollute and harm the Earth.
Engineering Design	Recognize common problems.	 Identify simple and common problems to solve compared to unrelated inanimate objects. 	 Identify common problems to solve compared to unrelated activities and situations that are not problems. 	Identify complex problems to solve compared to related activities and situations that are not problems.
	Recognize solutions to common problems.	 Identify simple solutions around daily activities and needs compared to unrelated inanimate objects. 	Identify simple solutions restricted to common problems and solutions and tools that solve them compared to obvious non-solutions.	Identify simple solutions restricted to common problems and solutions and tools that solve them compared to solutions to similar solutions.

Science Achievement Level Descriptors (ALDs)

General and Content-Specific Policy ALDs

	Level 1	Level 2	Level 3	Level 4
General Policy Definitions	Students demonstrate	Students demonstrate	Students demonstrate	Students demonstrate
	limited to no mastery of	inconsistent or partial	adept knowledge and skills	exceptional knowledge
	knowledge and skills	mastery of knowledge and	related to essentialized	and skills related to
	related to essentialized	skills related to	standards that meet	essentialized standards
	standards that do not meet	essentialized standards	proficiency.	that exceed the
	proficiency.	that do not meet		requirements for
		proficiency.		proficiency.
Content-Specific Policy	Performance indicates that	Performance indicates an	Performance indicates	Performance indicates
Definitions: Science	the student has limited to	inconsistent or partial	consistent understanding	superior understanding of
	no understanding of	understanding of academic	of academic concepts	academic concepts aligned
	academic concepts aligned	concepts aligned to	aligned to essentialized	to essentialized standards.
	to essentialized standards.	essentialized standards.	standards.	

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Grade 8 Science ALDs

		Level 1	Level 2	Level 3	Level 4
Content Area	Domain	In grade level content reduced in depth, breadth, and complexity, the student demonstrates limited to no performance when presented with items that ask them to:	In grade level content reduced in depth, breadth, and complexity, student demonstrates inconsistent or partial performance when presented with items that ask them to:	In grade level content reduced in depth, breadth, and complexity, student demonstrates proficient performance when presented with items that ask them to:	In grade level content reduced in depth, breadth, and complexity, student demonstrates superior proficient performance when presented with items that ask them to:
Science	Matter and Its Interactions	Identify physical properties of common matter.	Identify and compare simple physical properties including size, shape, hardness and softness, weight, mass and density of common objects, with the chemical property restricted to flammability.	• Identify and compare simple physical properties including size, shape, hardness and softness, weight, mass and density of common objects, with the chemical property restricted to flammability, including identifying such properties after a physical or chemical change.	• Identify and compare simple physical properties including size, shape, hardness and softness, weight, mass and density of common objects, with the chemical property restricted to flammability, including comparing physical and chemical changes, which have occurred and the results.

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	Recognize common objects people use.	Identify common objects and materials.	Identify common objects and materials that come from natural resources.	Identify the natural resource(s) from which common objects and materials come.
Motion ar Stability: F and Intera	orces moving objects.	• Identify when objects are at rest or in motion.	• Identify actions that involve an associated reaction.	 Identify and associate simple actions and reactions.
	 Recognize that common objects have mass. 	 Identify and compare objects in relation to their mass. 	Qualitatively link mass with force and motion.	 Qualitatively compare forces, mass and changes in motion of objects.
Energy	Recognize common hot and cold objects.	 Recognize the difference between hot and cold objects. 	 Recognize that hot and cold are related to measures of temperature, including changes in temperature. 	 Recognize examples of heat transfer, and how such transfer might be minimized or maximized.
Waves and Application Technology Information Transfer	ns in examples of waves.	 Identify different types of waves compared to other objects. 	Describe different types of waves qualitatively.	Describe and compare different types of waves qualitatively and quantitatively.
Molecules Organisms Structures Processes	parts of the human body.	Identify common external parts of the human body.	 Identify internal parts and systems of the body using simple terminology and diagrams. 	 Connect human body parts and systems to their materials and function.

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	Recognize animals and plants.	 Identify and distinguish animals and plants from other objects. 	Identify different animal and plant behaviors, parts and structures.	 Identify and connect animal and plant behaviors, parts, and structures to their function.
	Recognize that plants need light, air, and water.	Recognize that plants need light, air, and water to grow.	• Identify and compare the growth of plants given different amounts of light, water and/or air, including the term, role, and description of photosynthesis.	• Identify and compare the growth of plants given different amounts of light, water and/or air, including the term, role, and description of photosynthesis and flow of energy and materials.
	Recognize humans and animals need food.	Recognize that humans and animals need food to grow.	Recognize that humans and animals need food to grow, and that food provides energy.	• Recognize that humans and animals need food to grow, including graphical displays/diagrams about the amount of energy or expected growth under different situations.
Intera	• Recognize living organisms. y, and mics	 Recognize the difference between individual living organisms and groups of living organisms. 	 Identify resources that individual or groups of living organisms need to grow, reproduce, and sustain their population. 	Identify simple changes in resources and how they might affect an individual or group of living organisms.

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	Identify living	Identify living	Identify simple interactions	Identify simple
	organisms.	organisms compared to	between living and	interactions between
		non-living parts of	non-living parts of	individual and groups of
		ecosystems.	ecosystems.	living organisms in
				ecosystems.
Heredity:	 Recognize that living 	• Identify (match) the	 Identify the offspring of a 	 Identify the offspring of a
Inheritance and	organisms have	identical offspring of a	given living organism with	given living organism
Variation of	offspring.	given living organism	varying traits compared to	with varying traits
Traits		compared to different	different species.	compared to
		species.		different and the same
				species.
Biological	 Recognize physical 	 Recognize and identify 	 Recognize and identify 	 Recognize and identify
Evolution: Unity	characteristics of	like animals based on	similar animals based on	similar animals based on
and Diversity	animals.	physical characteristics.	physical characteristics.	physical characteristics,
				including
				fossils of common extinct organisms.
	Recognize simple	 Identify simple traits of 	 Identify simple traits of 	 Identify the function of
	traits of animals.	animals, without	animals that help them	traits related to a single
		referring to survival or	survive and reproduce,	animal or group of the
		reproduction,	compared to traits from	same animals compared
		compared to unrelated	other animals that help	to other traits that the
		objects and traits.	them survive.	target animals have.

Earth's Place in	Recognize that	Recognize the direction	Recognize the role of	Recognize the role of
the Universe	common objects	that common objects	gravity involving Earth-	gravity involving Earth-
	move when dropped.	will fall based on the	Moon and Earth-Sun	Moon and Earth-Sun
		role of gravity,	relations.	relations, and other
		including the use of the		natural and manmade
		term.		objects in the solar
				system.
	 Recognize the Sun 	 Identify the Sun and 	 Identify the Sun, Earth and 	 Identify and compare
	and Earth.	the Earth as compared	Moon as compared to	 additional objects in the
		to other unrelated	other related objects in	solar system and their
		objects on Earth.	space in the solar system.	features,
				including using diagrams,
				graphs, and models.
Earth's Systems	 Identify common 	 Identify processes that 	 Identify conditions and 	Identify geoscience
	Earth processes.	lead to erosion when	processes that lead to	processes that shape
		provided a model.	different types of surface	common
			weathering.	geographic features.
	 Recognize water in 	 Identify the three 	 Identify the three forms of 	 Identify and connect the
	<u>common different</u>	forms of water as	water as compared to	forms of water to various
	forms.	compared to other	other forms of water.	points in the water cycle
		unrelated objects.		using diagrams.
	 Identify different 	 Identify simple 	 Identify simple weather 	 Identify and connect
	types of weather	weather conditions	conditions compared to	physical conditions to
	conditions and their	compared to unrelated	related objects and	simple weather
	<u>characteristics.</u>	objects and conditions.	<u>conditions.</u>	<u>conditions.</u>

Earth and Human Activity	Recognize common ways to help the Earth.	 Identify simple and common ways to protect or help the Earth and environment compared to other common and unrelated activities. 	• Identify simple and common ways to protect or help the Earth and environment compared to other activities that pollute and harm the Earth.	Identify and compare simple methods for monitoring or reducing human impact on the Earth and environment.
	 Recognize common things that come from the Earth. 	 Identify natural resources compared to other unrelated items and objects. 	 Identify natural resources based on their use in communities. 	 Identify human use of resources and the effect on resources using simple graphs and diagrams.
Engineering Design	Recognize common problems.	Identify simple and common problems to solve compared to other unrelated activities/situations that are obviously not problems.	Identify more complex problems to solve compared to related activities/situations that are not problems.	 Identify more complex problems to solve compared to related activities/situations that are not problems, including the use of and diagrams, and issues about likelihood of problems based on simple data.

Recognize	e solutions • I	Identify simple	Identify simple solutions	Identify simple solutions
to commo	on problems s	solutions restricted to	restricted to common	restricted to common
		common problems and	problems and	problems and
	9	solutions/tools that	solutions/tools that solve	solutions/tools that
	9	solve them compared	them compared to	solve them compared to
	t	to obvious non-	solutions to other similar	solutions to other
	9	solutions	problems	similar problems,
				including the use of
				graphs and diagrams
				that show simple data

SCIENCE

HIGH SCHOOL SCIENCE

Science Achievement Level Descriptors (ALDs)

General and Content-Specific Policy ALDs

	Level 1	Level 2	Level 3	Level 4
General Policy Definitions	Students demonstrate	Students demonstrate	Students demonstrate	Students demonstrate
	limited to no mastery of	inconsistent or partial	adept knowledge and skills	exceptional knowledge
	knowledge and skills	mastery of knowledge and	related to essentialized	and skills related to
	related to essentialized	skills related to	standards that meet	essentialized standards
	standards that do not meet	essentialized standards	proficiency.	that exceed the
	proficiency.	that do not meet		requirements for
		proficiency.		proficiency.
Content-Specific Policy	Performance indicates that	Performance indicates an	Performance indicates	Performance indicates
Definitions: Science	the student has limited to	inconsistent or partial	consistent understanding	superior understanding of
	no understanding of	understanding of academic	of academic concepts	academic concepts aligned
	academic concepts aligned	concepts aligned to	aligned to essentialized	to essentialized standards.
	to essentialized standards.	essentialized standards.	standards.	

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Grade 11 Science ALDs

		Level 1	Level 2	Level 3	Level 4
Content	Domain	In grade level content	In grade level content	In grade level content	In grade level content
Area		reduced in depth, breadth,	reduced in depth, breadth,	educed in depth, breadth,	reduced in depth, breadth,
		and complexity, the	and complexity, student	and complexity, student	and complexity, student
		student demonstrates	demonstrates inconsistent	demonstrates proficient	demonstrates superior
		limited to no performance	or partial performance	performance when	proficient performance
		when presented with	when presented with	presented with items that	when presented with
		items that ask them to:	items that ask them to:	ask them to:	items that ask them to:
Science	Matter and Its Interactions	Identify physical and chemical properties.	• Identify and compare simple physical properties including size, shape, hardness and softness, weight, mass and density of common objects, and chemical property restricted to flammability.	Identify and compare simple physical and chemical properties after a physical and/or chemical change.	• Identify physical and chemical properties before and after a physical and/or chemical change, neither including whether or not a physical or chemical change has occurred, includes the use of graphs and data tables of such properties.

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	Identify the properties of different and common substances.	• Identify different bulk properties of common and everyday objects and materials when they are explicitly linked to the properties of the materials and resources from which they are made.	• Identify different bulk properties of common and everyday objects and materials when they are not linked to the properties of the materials and resources from which they are made.	• Identify the shared physical or chemical property of both the object/material and the material/resource from which they are made.
	Recognize common types of matter and that it can change or stay the same.	 Recognize through pictures and diagrams when a material or an object is the same. 	 Recognize through pictures and diagrams when the amount of matter (mass) of a given material or object is the same. 	Recognize that the amount of matter (mass) is conserved after a physical change or chemical reaction.
Motion and Stability: Forces and Inter-actions	Recognize that common objects have mass and move.	Qualitatively link mass with force and motion.	Qualitatively compare forces, mass and changes in motion of objects.	 Qualitatively and quantitatively compare forces, mass and changes in motion using diagrams, graphs, or tables.

	 Recognize that common moving objects have force. 	Identify which object has or requires the most or least amount of force.	Identify which among three options/scenarios involving the same object would result in an increase or decrease in	Identify devices that would help or ways in which one might decrease or minimize the amount of force during an
Energy	Recognize common types of energy.	Recognize and identify different examples of energy relative to its source.	 the amount of force. Recognize and identify different examples of energy relative to its source, including energy transfer. 	 impact/collision. Recognize examples of common or everyday energy conversion.
	Recognize common hot and cold objects.	Recognize that hot and cold are related to measures of temperature, including the tools used to measure temperature.	Recognize examples of heat transfer/changes in temperature, and how such transfer might be minimized, maximized, and/or measured.	Recognize heat transfer/changes in temperature using diagrams, models, graphs to show such transfer/change, including over time.

Waves and their Applications in Technologies for Information Transfer	Recognize and identify different types of common waves compared to other objects.	Identify and describe examples of waves qualitatively.	Identify, describe and compare different waves qualitatively.	• Identify, describe and compare waves using diagrams, graphs, and data tables that show examples of waves traveling through or interacting with various objects and media.
	Recognize common examples digital technology.	Identify various types of digital storage and transmitting technology compared to objects devices that are not related.	 Identify that digital technology stores and transmits information compared to other unrelated (non- electronic, non-digital) objects. 	 Identify that digital technology stores and transmits information compared to other electronic objects that do not.
From Molecules to Organisms: Structures and Processes	Identify common parts of living organisms, including humans.	 Identify different external and internal parts and systems of the body using simple terminology and diagrams. 	Identify and connect external human body parts to their materials and function.	Identify and connect internal human body parts to their materials and function.

Recognize that plants need light, air, and water to grow.	• Identify and compare the growth of plants given different amounts of light, water and/or air, including the term, role, and description of photosynthesis.	• Identify and compare the growth of plants given different amounts of light, water and/or air, including the term, role, and description of photosynthesis.	• Identify and compare the growth of plants given different amounts of light, water and/or air, incorporating diagrams of photosynthesis that indicate flow of energy and materials.
Recognize that humans and animals need oxygen and food to survive.	Recognize that humans and animals need food and oxygen to survive/grow.	Recognize that humans and animals need food and oxygen to survive/grow, and that these work together to provide energy.	Recognize that humans and animals need food and oxygen to survive/grow, incorporating graphs and diagrams to determine the relative amount of energy or expected growth based on a given situation involving food and/or oxygen.

	Eco-systems:	Recognize and identify	Identify various	Identify simple changes	Identify the availability of
	Interactions,	common factors that	resources and factors	in resources, and how	or simple changes in
	Energy, and	affect living organisms.	that individual or groups	such changes might	resources, and how such
	Dynamics		of living organisms need	affect an individual or	changes might affect
			to grow, reproduce, and	group of living	biodiversity in an
			sustain their population.	organisms.	ecosystem.
		 Recognize that living and 	 Identify interactions 	 Identify interactions 	• Identify how a changes to
		non-living organisms	between living and non-	between living organisms	non-living or living
		interact.	living aspects of a given	of a given ecosystem.	aspects of a given
			ecosystem.		ecosystem and how these
					aspects might be
					affected, including the
					development of new
<u>_</u>					ecosystems.
	Heredity:	 Recognize that living 	 Identify the offspring of a 	• Identify the offspring of a	• Identify the offspring of a
	Inheritance	organisms have offspring	given living organism	given living organism	given living organism with
	and Variation	that are similar to them.	with varying traits	with varying traits	varying traits compared
	of Traits		compared to different	compared to different	to different and the same
			species.	and the same species.	species, including
					situations involving
					environmental
					factors/mutation.

Biological Evolution: Unity and Diversity	Recognize simple traits of animals that help them survive.	 Identify simple traits of animals that help them survive and reproduce, compared to traits from other animals that are unrelated to the target animal. 	• Identify the function of traits that help a single animal/group of the same animal survive and reproduce among other traits of the target animal.	Identify which among variations of the same trait offers an advantage to an animal or group of the same animals in the given ecosystem.
	Identify common adaptive features of living organisms.	• Identify simple adaptive features of humans, animals or plants, without linking the adaptation to its purpose, compared to other features of the organism or others.	Identify simple adaptive features of humans, animals or plants linking the adaptation to its purpose as compared to other features of the organism.	Identify an organism's adaptation based on its function.
Earth's Plac in the Universe	• Recognize that the Sun provides light and heat.	Recognize that the Sun, compared to other space and non-space objects, gives light and heat energy to the Earth.	Recognize that the Sun, compared to other space objects, gives light and heat energy to the Earth and its organisms.	Recognize that the Sun gives energy to the Earth, plants and animals, and thus, humans in the form of different types of radiation, including examples beyond heat and visible light.

	Recognize the Sun, Earth	Identify the Sun, Earth	Identify and compare	Identify and compare
			•	i i
	and other common	and Moon compared to	features of natural	features of natural and
	objects in space.	other objects in the solar	objects in the solar	manmade objects in the
		system, with gravity	system, including the	solar system, including
		concepts restricted to	role of gravity in their	the role of gravity in their
		Earth-Moon and	orbit.	orbit.
		Earth-Sun.		
Earth's	 Identify common Earth 	 Identify conditions that 	Identify geoscience	Identify and link Earth
Systems	features and processes.	lead to specific types of	processes that shape	features to the
		surface weathering.	common geographic	geoscience process that
			features.	created them.
	Recognize and identify	Identify the three forms	Identify the three forms	Identify and connect the
	different forms of water.	of water as compared to	of water as compared to	forms of water to various
		other related substances.	other forms of water.	points in the water cycle
				using diagrams and
				graphs.
Earth and	Identify common types	Identify natural	Identify natural	Identify and link
Human	of weather and natural	resources, natural	resources, natural	resources, natural
Activity		1		
Activity	hazards that impact	hazards and aspects of	hazards and aspects of	hazards and aspects of
	humans.	weather and climate	weather and climate	weather and climate to
		compared to other	compared to other	their
		unrelated	related materials and	impact on humans.
		materials or objects.	processes.	

	Recognize common ways to help and hurt the Earth.	• Identify which of several simple and common choices is a way to protect or help the Earth as compared to activities that pollute and harm the Earth.	Identify and compare simple methods for monitoring or reducing human impact on the Earth and environment.	Identify and compare simple methods for monitoring or reducing human impact on the Earth and environment, including specifically the use of technology to monitor and protect the environment.
Engineering Design	Recognize common real- world problems and solutions.	Based on a simple problem that impacts an individual identify the problem, possible constraints, or solutions to the problem.	Based on a simple problem that impacts a community identify the problem, possible constraints or solutions to the problem.	Based on a simple problem that impacts broader society, identify the problem, possible constraints, or solutions to the problem.