



Science Extended Content Standards

Grades: 5, 7, & 10

Science ISAT-Alt Extended Content Objectives Grade 5

More Complex <-----> Less Complex

	Extended Content Objectives	Complexity Level 4	Complexity Level 3	Complexity Level 2	Complexity Level 1
Grade 5: Science Objective 1	<p>5.NS.1.2 1 A Use observations of a system and data to make a prediction.</p> <p>Note: System definition; weather, solar, ecosystem, circulatory etc.</p>	The student records data on a simple graph related to observations, over time (e.g. of a system) and makes a prediction based upon the information recorded on the graph.	The student records data related to an observation (e.g. of a system) over a period of time and presents the information on a simple graph.	The student selects two representations (e.g. object, photo, picture or icon) that correspond to two actual observations of a system.	The student selects a representation of a system (e.g. object, photo, picture or icon) that corresponds to an actual observation of a system.
Grade 5: Science Objective 2	<p>5 PS.2.1.2 A Describe the physical differences among solids, liquids, and gases.</p>	The student demonstrates an understanding of the characteristics that distinguish a solid, a liquid, and a gas.	The student groups by matching or sorting three different sets of items based on whether they are a solid, a liquid, or a gas.	The student discriminates by matching or sorting two different sets of items based on whether they are a solid, a liquid, or a gas.	The student groups by sorting two different sets of items based upon whether they are a solid, a liquid, or a gas.

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Grade 5: Science Objective 3	5.B.3.3.2 A Understand traits that are passed from parents to offspring.	The student identifies observable traits that are passed from human or animal parent to human or animal offspring. (e.g. hair or fur color, eye color, and or physical traits)	The student matches or sorts pictures or photographs of human or animal offspring to the appropriate parent.	The student discriminates between two or more picture cards that show an adult and its offspring. (e.g. human adult & baby or animal adult & baby)	The student sorts representations that correspond to traits of humans or animals (e.g. object, photo, picture, sound, or icon).
Grade 5: Science Objective 4	5.ES.4.1.1 A Identify how the interactions among the solid earth, oceans and atmosphere (erosion, climate, tectonics and continental drift) are connected.	The student presents a type of erosion and explains what has happened over time (water erosion, wind erosion).	The student identifies different types of erosion and what physically happens to the earth over time.	The student indicates the correctness of a sequence of interactions between the earth, oceans, and atmosphere.	The student sorts two sets of objects and or picture cards that represent the two types of erosion. (e.g. water erosion and wind erosion)
Grade 5: Science Objective 5	5.T.5.2.1 A Demonstrate how science and technology are part of a student's life.	The student demonstrates an understanding of the differences between renewable and non-renewable resources.	The student identifies objects according to their composition. (e.g. renewable resources such as wood products, & paper products, and non-renewable resources such as plastic and glass)	The student matches objects or pictures of objects and word cards based on their composition. (e.g. wood, plastic, glass)	The student sorts objects, photos/pictures of items based on their composition (e.g. wood, plastic, glass)

Science ISAT-Alt Extended Content Objectives Grade 7

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	Extended Content Objectives	Complexity Level 4	Complexity Level 3	Complexity Level 2	Complexity Level 1
Grade 7: Science Objective 1	7.NS.1.2.2 A Identify observation data to use in defensible inferences.	The student compares or contrasts data collected. (e.g. of a system) giving an explanation about the findings.	The student records data on a simple graph related to observations. (e.g. of a system) and makes a prediction based upon information recorded on the graph.	The student records data related to observations (e.g. of a system) over a period of time and presents the information on a simple graph.	The student selects two representations (e.g. object, photo, picture or icon) that correspond to two actual observations of a system).
Grade 7: Science Objective 2	7.S.2.1.2 A Identify the properties of matter.	The student demonstrates an understanding of the physical change that occurs when matter changes form. (e.g. from a solid to a liquid or liquid to a gas.)	The student demonstrates an understanding of the characteristics that distinguish a solid, a liquid, and a gas.	The student discriminates by matching three different sets of items with their picture/word cards based on whether they are a solid, a liquid, or a gas.	The student discriminates by sorting three different sets of items based on whether they are a solid, a liquid, or a gas.
Grade 7: Science Objective 3	7.B.3.3.4A Communicate how dominant and recessive traits are inherited.	The student demonstrates understanding by completing and/or presenting a genealogy chart distinguishing between dominant and recessive genes of humans or animals.	The student identifies observable traits that are passed from human or animal parent to human or animal offspring. (e.g. hair or fur color, eye color, and or physical traits)	The student matches or sorts pictures or photos of human or animal offspring to the appropriate parent.	The student sorts two sets of representations of parents and their offspring. (e.g. object, photo, picture sound or icon)

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Grade 7: Science Objective 4	<u>7.ES.4.1.2 A</u> Illustrate the water cycle and its relationship to weather and climate.	The student creates and explains a model of the water cycle and the effect weather plays in the cycle.	The student identifies the components of the water cycle by; naming, charting, labeling. (e.g. water, rain, clouds, snow, river, lake, ocean etc.)	The student demonstrates an understanding of the components of the water cycle through matching picture and word cards. (e.g. water, rain, clouds, snow, river, lake, ocean etc.)	The student sorts two sets of objects and or picture cards that represent two components of the water cycle. (e.g. water, rain, clouds, snow, river, lake, ocean etc.)
Grade 7: Science Objective 5	<u>7.T.5.3.1 A</u> Identify an alternative source of energy.	The student compares and contrasts two alternative sources of energy. (e.g. wind, sun)	The student demonstrates an understanding/ identifies the differences between two sources of alternative energy. (e.g. wind, sun)	The student matches objects or pictures/photos and word cards of at least two sources of alternative energy. (e.g. wind, sun)	The student sorts objects or photos/pictures based on a source of alternative energy. (e.g. wind, sun)

Science ISAT-Alt Extended Content Objectives Grade 10

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	Extended Content Objectives	Complexity Level 4	Complexity Level 3	Complexity Level 2	Complexity Level 1
Grade 10: Science Objective 1	<u>10.NS.1.1.1 A</u> Demonstrate understanding of a system.	The student presents or discusses a comparison of two systems including two to three similarities and differences between those two systems.	The student describes how a system works by labeling, diagramming, and charting the elements.	Using icons, sorting, or matching, the student discriminates between the characteristics of a system.	The student selects three representations (e.g. object, photo, picture, or icon) that correspond to three actual observations of a system.
Grade 10: Science Objective 2	<u>10.S.2.4.4 A</u> Identify matter that has basic electrical properties.	The student demonstrates, through an activity, electrical properties of matter.	The student describes the electrical properties of matter. (e.g. labels, charts)	The student is able to group by matching or sorting three sets of different items based on electrical vs. non-electrical properties.	The student groups by sorting two different sets of items based on electrical vs. non-electrical properties.
Grade 10: Science Objective 3	<u>10.B.3.3.2 A</u> Identify different functions of particular cell structures.	The student demonstrates understanding through creation and/or demonstration of a model that explains the functions of more than two cell structures.	The student identifies one or two cell structures and their function by labeling and/or communicating.	The student distinguishes between two cell structures by matching the cell structure with their picture/word card.	The student sorts two sets of representations of cell structures. (e.g. object, photo, picture sound or icon)

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Grade 10: Science Objective 4	<u>10.ES.4.1.3 A</u> Show how interactions between the solid earth, oceans, atmosphere, and organisms have changed the earth overtime.	The student describes what happens to the earth over time including the effects of water, erosion, and organisms.	The student identifies the impact on earth exposed over time to water erosion. (e.g. rivers, oceans, rain)	The student presents a type of erosion and explains what has happened over time. (e.g. water erosion, wind erosion)	The student sequences objects, picture and word cards representing a type of erosion before, during and after the process occurs. (e.g. water erosion, wind erosion)
Grade 10: Science Objective 5	<u>10.TS.1.1A</u> Identify common environmental issues with water, air quality, or trash.	The student reports on local/ community recycling benefits and describes how recycling can occur in the community.	The student demonstrates an understanding/ identifies differences between renewable and non-renewable resources.	The student matches pictures/photos of objects to word cards by their composition. (e.g. wood, paper, glass, or aluminum products)	The student sorts objects or photos/pictures of three different recyclable objects (e.g. wood, paper, glass or aluminum products)