2023-2024

Elementary ISAT Science Blueprint

IDAHO STATE DEPARTMENT OF EDUCATION
ASSESSMENT | ISAT SCIENCE

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TABLE OF CONTENTS

INTRODUCTION

This document is comprised of three different sections.

1. **Operational Items by Domain**: A table containing the number of Operational items for each domain on the Elementary Science ISAT.
2. **Test Item Breakdown:** A table showing the operational and field test item counts on the test. In addition to the 18 operational items on the live test, every student is assigned either one cluster or a few stand-alone items that are being field tested. Please note that field test items do not count towards a student's score and always appear at the end of the assessment.
3. **Potential Standards Addressed:** A list of the possible standards that can be used within each domain. The 2022 Idaho State Science Standards will be assessed during the 2023-2024 school year.

1. OPERATIONAL ITEMS BY DOMAIN

Domain	# of Clusters	# of Stand-Alone Items	Total Domain Items
Earth and Space Science	2	4	6
Life Science	2	4	6
Physical Science	2	4	6

2. TEST ITEM BREAKDOWN

Item Type	# of Clusters	# of Stand-Alone Items	Total Items
Operational Items	6	12	18
Field Test Items	1 or	up to 4	1 or up to 4
Total Summative Test Length	7 or	up to 16	19 or up to 22

3. POTENTIAL STANDARDS ASSESSED

Earth and Space Science

Earth's Systems

Idaho State Science Standard	Idaho State Science Standard Text
3-ESS-1.1	Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
3-ESS-1.2	Obtain and combine information to describe climates in different regions of the world.
4-ESS-1.1	Identify evidence from patterns in rock formations and fossils in rock layers for changes in a landscape over time to support an explanation for changes in a landscape over time.
4-ESS-2.1	Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.
4-ESS-2.2	Analyze and interpret data from maps to describe patterns of Earth's features.
5-ESS-2.1	Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
5-ESS-2.2	Describe and graph the relative amounts of fresh and salt water in various reservoirs, to interpret and analyze the distribution of water on Earth.

Earth and Human Activity

Idaho State Science Standard	Idaho State Science Standard Text
3-ESS-2.1	Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.
4-ESS-3.1	Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.
4-ESS-3.2	Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.
5-ESS-3.1	Obtain and combine information about ways communities protect Earth's resources and environment using scientific ideas.

Earth's Place in the Universe

Idaho State Science Standard	Idaho State Science Standard Text
4-ESS-1.1	Identify evidence from patterns in rock formations and fossils in rock layers for changes in a landscape over time to support an explanation for changes in a landscape over time.
5-ESS-1.1	Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from the Earth.
5-ESS-1.2	Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

Life Science

From Molecules to Organisms: Structure and Function

Idaho State Science Standard	Idaho State Science Standard Text
4-LS-1.1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
4-LS-1.2	Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
5-LS-1.1	Support an argument that plants get the materials they need for growth chiefly from air, water, and energy from the sun.

Ecosystems: Interactions, Energy, and Dynamics

Idaho State Science Standard	Idaho State Science Standard Text
3-LS-2.1	Construct an argument that some animals form groups that help members survive.
5-LS-2.4	Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Heredity: Inheritance and Variation of Traits

Idaho State Science Standard	Idaho State Science Standard Text
3-LS-3.1	Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
3-LS-3.2	Use evidence to support the explanation that traits can be influenced by the environment

Biological Adaptation: Unity and Diversity

Idaho State Science Standard	Idaho State Science Standard Text
5-LS-2.1	Analyze and interpret data from fossils to provide evidence of the types of organisms and the environments that existed long ago and compare those to living organisms and their environments.
5-LS-2.2	Construct an argument with evidence for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing
3-LS-3.3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
5-LS-2.3	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

Physical Science

Motion and Stability: Forces and Interactions

Idaho State Science Standard	Idaho State Science Standard Text
3-PS-1.1	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
3-PS-1.2	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.
3-PS-1.3	Ask questions to determine cause and effect relationships of static electricity or magnetic interactions between two objects not in contact with each other.
3-PS-1.4	Define a simple design problem that can be solved by applying scientific ideas about magnets.

Idaho State Science Standard	Idaho State Science Standard Text
5-PS-2.1	Support an argument that Earth's gravitational force exerted on objects is directed downward.

Energy

Idaho State Science Standard	Idaho State Science Standard Text
4-PS-1.1	Use evidence to construct an explanation relating the speed of an object to the energy of that object.
4-PS-1.2	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
4-PS-1.3	Ask questions and predict outcomes about the changes in energy that occur when objects collide.
4-PS-1.4	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
5-PS-3.1	Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Waves

Idaho State Science Standard	Idaho State Science Standard Text
4-PS-2.1	Develop a model of a simple mechanical wave to describe patterns of amplitude and wavelength and that waves can cause objects to move.
4-PS-2.2	Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.
4-PS-2/3	Generate and compare multiple solutions that use patterns to transfer information.

Matter and Its Interactions

Idaho State Science Standard	Idaho State Science Standard Text
5-PS-1.1	Develop a model to describe that matter is made of particles too small to be seen.
5-PS-1.2	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
5-PS-1.3	Make observations and measurements to identify materials based on their properties.
5-PS-1.4	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.