



Idaho Alternate Assessment Science Blueprint

Middle School: Grade 8

IDAA SCIENCE ITEM DISTRIBUTION ACROSS STRANDS: 40 ITEMS

Strand	Minimum Items	Maximum Items	% of Items Per Strand
Physical Science	12	15	24-30%
Life Science	12	15	24-30%
Earth and Space Science	12	15	24-30%

PHYSICAL SCIENCE ITEMS ACROSS STANDARDS: 12 TO 15 ITEMS

Matter and Its Interactions Items Across Standards: 3 to 5 Items

Matter and Its Interactions Standards	Minimum Items	Maximum Items
PS1-MS-1: Structure & Properties of Matter - matter is made of molecules	0	1
PS1-MS-2 : Chemical Reactions - each substance has chemical and physical properties	0	1
PS1-MS-3 : Structure & Properties of Matter - natural resources used to make materials	0	1
PS1-MS-4 : Structure & Properties of Matter - matter changes state when thermal energy is added or removed	0	1
PS1-MS-6: Chemical Reactions - some chemical reactions release heat; others store heat	0	1

Motion and Stability: Forces and Interactions Items Across Standards: 3 to 5 Items

Motion and Stability: Forces and Interactions Standards	Minimum Items	Maximum Items
PS2-MS-1 : Forces & Interactions* - motion of colliding objects exert forces on each other	0	1
PS2-MS-2 : Forces & Interactions - unbalanced forces cause a change of motion	0	1
PS2-MS-3 : Forces & Interactions - some forces act at a distance without physical contact with an object	0	1
PS2-MS-4 : Forces & Interactions - gravitational force exists between any two objects	0	1
PS2-MS-5: Forces & Interactions - behavior of magnets	0	1

Energy Items Across Standards: 3 to 5 Items

Energy Standards	Minimum Items	Maximum Items
PS3-MS-1 : Energy - kinetic energy is proportional to the mass of an object	0	2
PS3-MS-3 : Energy* - transfer of heat from one object to another	0	2



Energy Standards	Minimum Items	Maximum Items
PS3-MS-4 : Energy - temperature measures the amount of heat transferred	0	2
PS3-MS-5 : Energy - when motion energy of an object changes, the object gains or loses energy	0	2

Waves and Their Applications in Technologies for Information Transfer Items Across Standards: 3 to 5 Items

Waves and Their Applications in Technologies for Information Transfer Standards	Minimum Items	Maximum Items
PS4-MS-1 : Waves & Electromagnetic Radiation - mechanical waves have a repeating pattern	0	2
PS4-MS-2 : Waves & Electromagnetic Radiation - behavior of light waves	0	2
PS4-MS-3 : Waves & Electromagnetic Radiation - technology advances in communication	0	2

LIFE SCIENCE ACROSS STANDARDS: 12 TO 15 ITEMS

From Molecules to Organisms: Structure and Processes Items Across Standards: 3 to 5 Items

From Molecules to Organisms: Structure and Processes Standards	Minimum Items	Maximum Items
LS1-MS-1: Structure, Function, Information Processing - all living things are made of cells	0	1
LS1-MS-2 : Structure, Function, Information Processing - cells made of parts with different functions	0	1
LS1-MS-3 : Structure, Function, Information Processing - body is a group of systems working together	0	1
LS1-MS-4 : Growth and Development of Organisms - characteristics of behaviors and specialized functions	0	1
LS1-MS-5: Organization for matter and energy flow in organisms - process of photosynthesis	0	1
LS1-MS-6 : Matter & Energy - process of photosynthesis	0	1

Ecosystems: Interactions, Energy, and Dynamic Items Across Standards: 3 to 5 Items

Ecosystems: Interactions, Energy, and Dynamic Standards	Minimum Items	Maximum Items
LS2-MS-1: Matter & Energy - organisms dependent upon living and nonliving environment	0	1
LS2-MS-2 : Interdependent Relationships in Ecosystems - interaction among organisms across multiple ecosystems	0	1
LS2-MS-3 : Cycle of Matter and Energy Transfer in Ecosystems	0	1
LS2-MS-4 : Matter & Energy - energy pyramids show energy available to organisms	0	1
LS2-MS-5 : Matter & Energy - changes to physical or biological components in ecosystems effects populations	0	1



Heredity: Inheritance and Variation of Traits Items Across Standards: 2 to 3 Items

Heredity: Inheritance and Variation of Traits Standards	Minimum Items	Maximum Items
LS3-MS-1: Growth, Development, Reproduction - structural changes to genes lead to mutations	0	2
LS3-MS-2 : Growth, Development, Reproduction - sexual and asexual reproduction	0	2

Biological Evolution: Unity and Diversity Items Across Standards: 4 to 6 Items

Biological Evolution: Unity and Diversity Standards	Minimum Items	Maximum Items
LS4-MS-1 : Natural Selection & Adaptation - fossil records give evidence how living things change over time	0	1
LS4-MS-2 : Natural Selection & Adaptation - similarities and differences between organisms today and in fossil record	0	1
LS4-MS-3 : Natural Selection & Adaptation - identify relationships using similar structures across multiple species	0	1
LS4-MS-4 : Natural Selection & Adaptation - organisms with certain traits are likely to survive and reproduce	0	1
LS4-MS-5 : Growth, Development, Reproduction - humans can influence characteristics of organisms	0	1
LS4-MS-6 : Natural Selection & Adaptation - natural selection favors the survival of organisms in species with favorable traits	0	1

EARTH AND SPACE SCIENCE ITEM DISTRIBUTION: 12 TO 15 ITEMS

Earth's Place in the Universe Items Across Standards: 3 to 5 Items

Earth's Place in the Universe Standards	Minimum Items	Maximum Items
ESS1-MS-1 : Space Systems - motion of sun, moon, and stars can be observed, described, and predicted	0	2
ESS1-MS-2 : Space Systems - gravitational force between objects in solar system	0	2
ESS1-MS-3 : Space Systems - comparison of planets	0	2
ESS1-MS-4 : History of Earth - rock layers and fossil records reveal Earth's history	0	2

Earth's Systems Items Across Standards: 5 to 7 Items

Earth's Systems Standards	Minimum Items	Maximum Items
ESS2-MS-1 : Earth's Systems - Earth materials cycle through processes	0	2
ESS2-MS-2 : History of Earth - geoscience processes shape and reshape Earth's surface	0	2
ESS2-MS-3 : History of Earth - evidence of plate movement over time	0	2
ESS2-MS-4 : Earth's Systems - water cycles through Earth's systems	0	2
ESS2-MS-5 : Weather & Climate - weather conditions	0	2
ESS2-MS-6 : Weather & Climate - climates are influenced by interactions of sunlight, the ocean, the atmosphere and landforms	0	2



Earth and Human Activity Items Across Standards: 3 to 5 Items

Earth and Human Activity Standards	Minimum Items	Maximum Items
ESS3-MS-1: Earth's Systems - Humans depend upon natural resources for survival	0	2
ESS3-MS-2 : Human Impacts - data from natural hazards can be used to help mitigate harmful effects of future events.	0	2
ESS3-MS-3 : Human Impacts* - human activities can alter the biosphere by damaging habitats	0	2
ESS3-MS-4 : Human Impacts - human populations and resources they use impact Earth systems	0	2
ESS3-MS-5 : Weather & Climate - human activities and natural processes can alter Earth which lead to climate variability	0	2