

Practice Test Answer and Alignment Document
Science: Grade 8
Online

Section 1

Item Number	Answer Key	Performance Expectation
1.	C	MS-LS1-1
2.	C	MS-LS1-1
3.	The sentence should read: Using observations from their investigation, the students classified the salt as [nonliving] because unlike the onion, the salt [lacks cells].	MS-LS1-1
4.	D	MS-LS1-3
5.	The order of body structures from “Least Complex Organization” to “Most Complex Organization” is: Cells, Tissues, Organs, Organ systems, Body.	MS-LS1-3
6.	Refer to Grade 8 Science Scoring Rubric	MS-LS1-3
7.	D	MS-ESS2-4
8.	<p>Part A: “Renewable Resources” include:</p> <ul style="list-style-type: none"> 1) water 2) trees 3) sunlight <p>“Nonrenewable Resources” include:</p> <ul style="list-style-type: none"> 1) metal 2) oil 3) coal <p>Answers can be in any order in each box.</p> <p>Part B: D</p>	MS-ESS3-1

Item Number	Answer Key	Performance Expectation
9.	A, D, E	MS-ESS2-4
10.	A	MS-ESS3-1
11.	B	MS-ESS3-1
12.	Refer to Grade 8 Science Scoring Rubric	MS-ESS3-1

Section 2

Item Number	Answer Key	Performance Expectation
1.	C	MS-PS1-1
2.	B	MS-PS1-1
3.	A	MS-PS1-1
4.	D	MS-PS1-1
5.	The sentence should read: In the thermometer model, the liquid expanded because the [average kinetic energy] of a liquid's molecules changes proportionally to the change in [temperature].	MS-PS1-4
6.	Refer to Grade 8 Science Scoring Rubric	MS-PS1-4
7.	B	MS-LS3-2
8.	<p>"Number of Chromosomes in Each Parent" is: 28</p> <p>"Number of Chromosomes Provided by Parent 1" is: 14</p> <p>"Number of Chromosomes Provided by Parent 2" is: 14</p> <p>"Number of Chromosomes in Each Offspring" is: 28</p>	MS-LS3-2
9.	The sentences should read: When different colonies of corals reproduce with one another, the method of reproduction used is [sexual]. This method of reproduction will <u>most likely</u> cause [an increase in genetic variation] for the coral offspring.	MS-LS4-4
10.	A	MS-LS4-4

Item Number	Answer Key	Performance Expectation
11.	<p>Part A: D</p> <p>Part B: The sentences should read: The students' research indicated that if ocean temperatures continue to increase, corals will most likely have [a decrease] in genetic variation due to the population [decreasing in size]. This will cause coral populations to experience [a decreased likelihood] of survival.</p>	MS-LS4-4
12.	Refer to Grade 8 Science Scoring Rubric	MS-LS3-2

Section 3

Item Number	Answer Key	Performance Expectation
1.	C	MS-ESS1-2
2.	C, D	MS-ESS1-1
3.	The sentence should read: When Earth is in Location 1 on the Diagram of Seasons, the season in Maryland would be [winter] because the Northern Hemisphere is tilted [away from] the sun.	MS-ESS1-1
4.	D	MS-ESS1-2
5.	C	MS-ESS1-3
6.	Refer to Grade 8 Science Scoring Rubric	MS-ESS1-3
7.	The sentences should read: After researching the orbits of asteroids in the solar system, students explained that in order for asteroids in the asteroid belt to remain in orbit, [the sun] must exert a strong gravitational force. The direction of the force is [toward] the center of the solar system.	MS-PS2-4
8.	B	MS-PS2-1
9.	The order of asteroids from "Weakest Gravitational Attraction" to "Strongest Gravitational Attraction" is: Otawara, Gaspra, Mathilde, Eugenia, Juno.	MS-PS2-4
10.	Part A: The asteroid that would <u>most likely</u> be orbited by other asteroids is: Vesta Part B: A	MS-PS2-4
11.	The point in Golevka's orbit that the Yarkovsky effect is the weakest is: 1	MS-PS2-4
12.	Refer to Grade 8 Science Scoring Rubric	MS-PS2-4

Section 4

Item Number	Answer Key	Performance Expectation
1.	B	MS-PS2-3
2.	<p>The magnet arrangements that would keep the train floating above the guideway include:</p> <ol style="list-style-type: none"> 1) The arrangement with the "+" magnet of the train facing the "+" magnet of the guideway 2) The arrangement with the "-" magnet of the train facing the "-" magnet of the guideway 	MS-PS2-3
3.	A	MS-PS2-5
4.	<p>The sentences should read: After the investigation, the student's hypothesis was confirmed because when the number of coils around the iron core were decreased, the strength of the electromagnet [decreased]. When the iron core was replaced with steel, the strength of the electromagnet [increased].</p>	MS-PS2-3
5.	B	MS-PS2-3
6.	Refer to Grade 8 Science Scoring Rubric	MS-PS2-5
7.	<p>The "Producer" box includes:</p> <ol style="list-style-type: none"> 1) big bluestem grass <p>The "Consumer" box includes:</p> <ol style="list-style-type: none"> 1) American bison 2) black-tailed prairie dog 3) golden eagle <p>Answers can be in any order in the "Consumer" box.</p>	MS-LS2-3
8.	D	MS-LS2-3
9.	B	MS-LS2-3

Item Number	Answer Key	Performance Expectation
10.	D	MS-LS2-1
11.	The sentence should read: The prairie dog and the grasshopper interact in a [competitive] way because the prairie dog [consumes the same resources as] the grasshopper.	MS-LS2-2
12.	Refer to Grade 8 Science Scoring Rubric	MS-LS2-1