

Spring May 2024 Grade 8 Science Answer Key

Item Position	Item Type	TEKS Assessed	Maximum Number of Points	Correct Answer(s)	Reporting Category	Readiness and Supporting
1	Multiple Choice	8.11(A)	1	A	4	Readiness
2	Multiple Choice	8.9(C)	1	B	3	Readiness
3	Multiple Choice	8.6(C)	1	A	2	Readiness
4	Multiselect	7.6(A)	2	B, D See Appendix 1.1	1	Supporting
5	Multiple Choice	8.7(A)	1	A	3	Readiness
6	Drag and Drop	8.5(A)	2	See Appendix 1.2	1	Readiness
7	Multiple Choice	8.7(B)	1	B	3	Readiness
8	Short Constructed Response	7.12(B)	2	See Appendix 1.3	4	Supporting
9	Multiple Choice	8.5(C)	1	B	1	Readiness
10	Multiple Choice	8.11(B)	1	C	4	Readiness
11	Multiple Choice	6.8(D)	1	D	2	Supporting
12	Multiple Choice	6.12(D)	1	C	4	Supporting

13	Multiple Choice	8.11(C)	1	D	4	Supporting
14	Multiple Choice	6.9(C)	1	A	2	Supporting
15	Multi Part	8.9(B)	2	A, D	3	Readiness
16	Multiple Choice	8.6(A)	1	D	2	Readiness
17	Multiple Choice	8.5(B)	1	B	1	Readiness
18	Multiple Choice	8.9(A)	1	B	3	Supporting
19	Drag and Drop	8.8(A)	2	Comet, Meteor, Star, Comet or Meteor, Nebula See Appendix 1.4	3	Readiness
20	Multiple Choice	7.11(A)	1	C	4	Supporting
21	Multiple Choice	8.11(B)	1	D	4	Readiness
22	Multi Part	8.6(C)	2	B, C	2	Readiness
23	Multiple Choice	8.7(B)	1	B	3	Readiness
24	Multiple Choice	7.5(B)	1	D	1	Supporting

25	Multiple Choice	8.5(A)	1	B	1	Readiness
26	Multiple Choice	8.5(D)	1	C	1	Readiness
27	Multiple Choice	8.7(C)	1	D	3	Supporting
28	Multiple Choice	8.6(B)	1	A	2	Supporting
29	Hot Spot	7.12.F	2	See Appendix 1.5	4	Supporting
30	Multiple Choice	8.9(B)	1	B	3	Readiness
31	Multiple Choice	8.5(C)	1	A	1	Readiness
32	Multiple Choice	7.11(C)	1	A	4	Supporting
33	Multiple Choice	8.5.E	1	C	1	Readiness
34	Short Constructed Response	8.7(A)	2	See Appendix 1.6	3	Readiness
35	Multiple Choice	8.11(A)	1	C	4	Readiness
36	Drag and Drop	8.6(A)	1	7 newtons, 8 newtons See Appendix 1.7	2	Readiness
37	Multiple Choice	6.8(A)	1	A	2	Supporting
38	Multiple Choice	8.5(B)	1	C	1	Readiness

Spring May 2024 Grade 8 Science Appendix

1.1

Matter can undergo physical or chemical changes. Which of these are examples of physical changes?

Select **TWO** correct answers.

Burning wood

Breaking an egg

Cooking an egg

Freezing a popsicle

Rusting iron

1.2

What are the charge **AND** location of each subatomic particle of an atom?

Move the correct answer to each box in the table. Each answer may be used more than once.

0 -1 +1 Nucleus Energy levels

Subatomic Particle	Charge	Location
Proton	+1	Nucleus
Neutron	0	Nucleus
Electron	-1	Energy levels

1.3

Which **TWO** body systems are **MOST DIRECTLY** responsible for students being able to feel rain on their skin?

Identify the body systems **AND** explain how these systems are responsible for creating a sensation on skin.

Enter your answers in the box provided.

The student identifies the nervous system and integumentary system AND explains how both systems interact to allow the student to feel the rain on their skin:

Nervous system:

- This system responds to internal and external stimuli (the rain falling onto skin).
- This sends a signal to the brain that something cold and wet has touched the body, causing an external response (shivering).

Integumentary system:

- This system is responsible for protecting the body and its organs.
- This system detects stimuli (rain falling onto skin) and regulates body temperature (the shivering).

1.4

Some characteristics of several astronomical objects are listed. Identify each object based on the characteristic listed.

Move the correct answer to each box. Each answer may be used more than once.

Star Nebula Comet Meteor

Identification of Astronomical Objects

	Characteristic	Astronomical Object
1	Contains a center of dust and ice	Comet
2	Rock that vaporizes as it falls through Earth's atmosphere	Meteor
3	Sphere of plasma that produces its own light	Star
4	Has a tail of gas and dust particles	Comet
5	Cloudlike formation of gas and dust	Nebula

Some characteristics of several astronomical objects are listed. Identify each object based on the characteristic listed.

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1.5

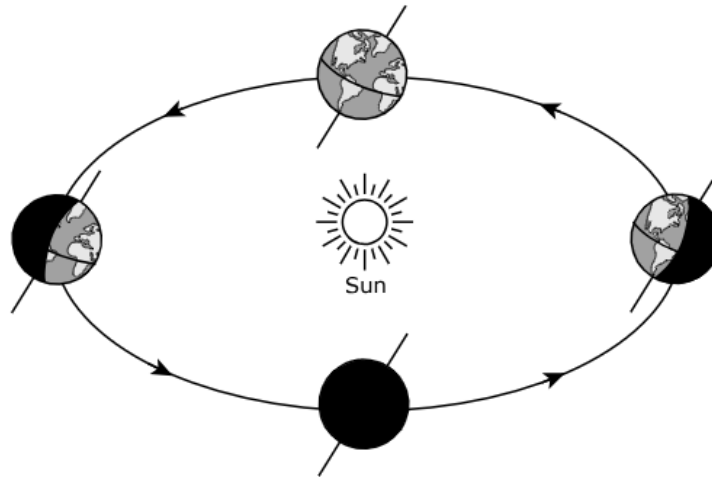
Students listed characteristics of some cells they had studied. Identify the characteristics that are part of the cell theory.

Select **TWO** correct answers.

	Characteristics of Cells
<input type="radio"/>	Are able to move freely
<input checked="" type="radio"/>	Are the basic units of life
<input type="radio"/>	Have similar structures
<input type="radio"/>	Help fight diseases
<input checked="" type="radio"/>	Can only come from other cells
<input type="radio"/>	Use nutrients for growth

1.6

The diagram shows Earth at different positions as it orbits the sun.



What differences between Earth's Northern and Southern Hemispheres are represented in the diagram, **AND** what causes these differences?

Look at the diagram and read the question carefully. Then enter your answers in the box provided.

The student explains that the diagram shows that the Northern and Southern Hemispheres experience different seasons at the same time. **AND** The reason for the differences in seasons between the hemispheres is because Earth is tilted on its axis and revolves around the sun. As a result, one hemisphere of Earth is tilted toward the sun and experiences summer while, at the same time, the other hemisphere is tilted away from the sun and experiences winter.

1.7

The diagram shows two arrows that represent the directions of two forces acting on a 1-kilogram ball. The arrows do not represent amounts of force, they only represent the directions of the two forces.

How should the diagram be labeled if the ball is accelerating to the west at a rate of 1 m/s^2 ?

Move the correct answer to each box. Not all answers will be used.

- 12 newtons
- 10 newtons
- 8 newtons
- 7 newtons
- 5 newtons

