

UIL A+ Science Update

Starting in the 2021-22 school year, Science has moved to one test for students in grades 6-8.

The new Science test will include similar types of questions as the previous Science tests and will cover current state-adopted curriculum and textbooks with approximately 15 questions for each grade level (6, 7, and 8) and five wild card or general questions on the test.

Below are sample questions and a key for the updated Science event.

2021-2022 A+ SCIENCE SAMPLE QUESTIONS

1. Within any group of elements on the periodic table the metallic character tends to do which of the following from bottom to top in the group?
A. Increase B. Decrease C. Remains constant
2. A tennis ball is dropped from a step stool one meter high. At which position does the tennis ball have the greatest potential energy and least kinetic energy?
A. At 0 meter high C. At .5 meter high
B. At .25 meter high D. At .75 meter high
3. A car travels 35 kilometers in 30 minutes. What is the average speed of this car?
A. .86 km/hr
B. 1.17 km/hr
C. 70 km/hr
D. 700 km/hr
4. A class was studying human body systems. Composed of a number of small organs distributed throughout the body, this system coordinates the metabolic activity of body cells by interacting with the nervous system. The class was studying which of the following systems?
A. Endocrine system C. Circulatory system
B. Immune system D. Muscular system
5. According to cell theory, what do each of the following organisms have in common?
A. They can all reproduce by spontaneous generation.
B. Each organism is able to photosynthesize.
C. Cells are the basic unit of structure for each organism.
D. They are all made up of the same exact atoms.



6. In recent years, there have been numerous agencies planning manned trips to Mars. Why is traveling to Mars so difficult?
- A. Temperatures in space
 - B. Distance between planets
 - C. No landing runway on Mars
 - D. Erratic motion of planets
7. Speed is a scalar type of measurement and velocity is a vector type measurement. What is the main difference between scalar and vector measurements?
- A. Scalar measurements include a direction
 - B. Vector measurements include a direction
 - C. Neither scalar nor vector measurements include a direction
 - D. Both scalar and vector measurements include a direction
8. A force acts on a soccer ball for four seconds causing it to accelerate. If the ball is replaced with a similar ball with four times the mass and the same force is applied for the same amount of time, the acceleration of the similar ball will now be –
- A. One fourth the value
 - B. One half the value
 - C. Twice the value
 - D. Four times the value



9. Which of the following best supports the Big Bang Theory?

- A. Various shapes of galaxies
- B. Speed of light
- C. Red & blue shifts of light from stars
- D. The motion of planets in orbit

10. What does this symbol indicate about a substance?

- A. Can cause injury to skin
- B. Can burn easily
- C. Hazardous to the environment
- D. Harmful to inhale



SAMPLE QUESTIONS KEY

- 1. B
- 2. D
- 3. C
- 4. A
- 5. C
- 6. A
- 7. B
- 8. A
- 9. C
- 10. B