

Unit Test 5/16/2025

Solar System, Scientific Notation, Solutions ,

The respondent's email (nicolas_richard31@milton.edu) was recorded on submission of this form.

What process powers the Sun and other stars by turning hydrogen into helium? *

- Combustion
- Nuclear fusion
- Radiation
- Fission

What is an Astronomical Unit (AU) based on? *

- The distance from the Sun to Neptune
- The radius of Earth
- The average distance from Earth to the Sun
- The orbit of the Moon

What does "axial tilt" affect the most on a planet like Earth? *

- Earthquakes
- Gravity
- Seasons
- Moon phases

What is meant by "rotation" of a planet? *

- Movement around the Sun
- Tilting of the axis
- One complete spin on its axis
- Movement of tectonic plates

What is a revolution in space terms? *

- Spinning on an axis
- Orbiting around the Sun once
- Changing seasons
- Rotation of the Moon

What type of planets are Earth, Mars, Venus, and Mercury? *

- Gas giants
- Ice giants
- Dwarf planets
- Terrestrial planets

What formed the solar system about 4.6 billion years ago? *

- A supernova
- A solar nebula
- A galaxy collision
- A black hole

What is a solute? *

- A liquid that dissolves other substances
- A substance that is dissolved in a solution
- A gas that floats in the air
- A solid that never mixes with anything

In a mixture of salt and water, what is the solute? *

- Water
- Salt
- Ice
- Air

What is the solvent in saltwater? *

- Water
- Salt
- Sugar
- Oil

Which of the following is the best example of a solvent? *

- Sand
- Water
- Salt
- Ice cube

What does "solubility" describe? *

- The color of a substance
- How much solute can dissolve in a solvent at a certain temperature
- The size of the container
- How fast a substance melts

Why does sugar dissolve faster in hot water than in cold water? *

- Cold water is more active
- Hot water increases the solubility of sugar
- Sugar is cold
- Heat changes the color of sugar

What does "concentration" measure? *

- The temperature of a solution
- The amount of solute in a certain volume of solvent
- The color of the solution
- How quickly the solute disappears

If you add more salt to water and it doesn't dissolve, what does that tell you? *

- The water is cold
- The salt is bad
- The solution is saturated
- The salt is heavier than water

What is 5,600,000 written in scientific notation? *

- 5.6×10^3
- 5.6×10^6
- 56×10^5
- 0.56×10^7

What is 0.00032 written in scientific notation? *

- 3.2×10^{-4}
- 3.2×10^4
- 32×10^{-5}
- 0.32×10^{-3}

What is 7.1×10^2 in standard notation? *

- 7100
- 710
- 71
- 7.01

What is 4.5×10^{-3} in standard notation? *

- 0.0045
- B) 0.00045
- C) 4500
- D) 0.045

What is an observation? *

- A guess about what will happen
- A procedure to test a theory
- Using your senses to gather information
- Changing variables in an experiment

What is a hypothesis? *

- A conclusion from an experiment
- A random idea
- A tool used in science
- An educated guess that can be tested

What is an experiment? *

- A way to guess the outcome
- A summary of results
- A procedure to test a hypothesis
- A chart to display data

Which of the following best describes a variable? *

- A constant in the experiment
- The last step of the scientific method
- Anything that can change or be changed
- A type of scientific tool

What is the independent variable in an experiment? *

- The variable that you measure
- The variable kept the same
- The variable you change on purpose
- The variable that is never used

Which variable do you measure or observe in an experiment? *

- Independent variable
- Control variable
- Unstable variable
- Dependent variable

What are control variables? *

- The variable being measured
- Things that are kept the same during an experiment
- The result of the hypothesis
- A type of graph

What is data in a scientific experiment? *

- The final guess
- The hypothesis
- Information gathered during the experiment
- The materials li

What is a conclusion? *

- A guess at the start of an experiment
- A list of supplies
- A summary of what was learned from an experiment
- The first step of the scientific method

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