

10 Multiple choice questions

Term

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What fraction of the 92 natural elements are required for life?

- Only 5 elements are required for life.
- About 25 elements are required for life.
- None of the elements are required for life.
- All 92 elements are required for life.

Term

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What is an acid?

- A substance that absorbs H⁺ ions and increases pH.
- A substance that does Not react with water at all.
- A substance that releases H⁺ ions when dissolved in water.
- A substance that forms solid precipitates in water.

Term

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What are radioactive tracers?

- Stable isotopes that do not emit any energy.
- Isotopes that are used solely for industrial purposes.
- Elements that are only found in trace amounts in the earth's crust.
- Isotopes that emit energy and electrons, used to track atoms in biological systems.

Term

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What is the first step in the scientific method?

- Observation/Exploration.
- Natural Selection.
- Seminars/meetings And Scientific Literature/publications.
- Evolution.

Term

What is a compound?

- A compound is an ion with a charge.
- A compound is a mixture of elements.
- A compound consists of two or more elements in fixed proportions.
- A compound is a single element.

Term

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What is a valence shell?

- The shell that contains only neutrons.
- The shell that determines the mass of the atom.
- The outermost shell of an atom, where electrons determine how the atom will bond.
- The innermost shell of an atom, containing all protons.

Term

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What is the role of water as a solvent?

- It repels all types of molecules.
- It solidifies most substances at low temperatures.
- It only dissolves gases and not solids.
- It dissolves many substances, including salts, proteins, and sugars.

Term

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What is an example of an organism's adaptation to its environment?

- The color of the beach mouse, which is well matched to its local background.
- The size of the beach mouse, which is significantly larger than other mice.
- The diet of the beach mouse, which consists solely of fruit.
- The habitat of the beach mouse, which is found in urban areas.

Term

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What happens to an atom when it loses electrons?

- It becomes negatively charged.
- It becomes positively charged.
- It remains neutral.
- It becomes neutral.

Term

What is a covalent bond?

- A bond formed when electrons are transferred from one atom to another.
- A bond that does not involve any electrons.
- A bond formed when two atoms share electrons.
- A bond that occurs only in ionic compounds.

10 Matching questions

What is the first electron shell's capacity?

What are Van der Waals interactions?

What is the second electron shell's capacity?

What makes water a polar molecule?

What are evolutionary adaptations?

What does the mass number represent?

What does the pH scale measure?

What are some examples of organisms in the domain Eukarya?

What are hydrophilic substances?

What does a pH of 14 represent?

A. Inherited traits that enhance survival in an organism's specific environment.

B. The first electron shell can hold 2 electrons.

C. The second electron shell can hold 8 electrons.

D. Electrons spend more time near the oxygen than the hydrogen.

E. Highly basic solutions, such as sodium hydroxide.

F. Substances that are water-loving and dissolve well in water.

G. Weak charge attractions between polar molecules.

H. The concentration of free H⁺ ions in solutions.

I. The number of protons plus the number of neutrons in an atom.

J. Amoebas, algae, dinoflagellates, diatoms.