

Name: _____ Date: _____

Blast Off with Carbon: 6th Grade Organic Chemistry Quiz

Imagine you're an astronaut searching for life; you'll need to identify carbon chains and recognize the flexible bonds that build every living cell.

1. Carbon is often called the 'Lego brick' of life because it can bond with up to how many other atoms at once?

- A. 2
- B. 4
- C. 6
- D. 8

2. True or False: Organic chemistry is the study of molecules that almost always contain the element carbon.

- A. True
- B. False

3. Molecules made of ONLY carbon and hydrogen atoms, like the wax in a candle, are called _____.

- A. Carbohydrates
- B. Hydrocarbons
- C. Oxides
- D. Nitrates

4. Which of these is a common 'shape' that carbon atoms form when they link together in large organic molecules?

- A. Perfect Pyramids
- B. Long Chains
- C. Floating Squares
- D. Solid Spheres

5. When an organic molecule like propane reacts with oxygen to release heat and light, the process is called _____.

- A. Freezing
- B. Evaporation
- C. Combustion
- D. Melting

6. True or False: Synthetic materials like plastic are actually made of organic molecules.

- A. True
- B. False

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7. If you find a molecule with a 'ring' of carbon atoms, which of these substances might you be looking at?

- A. Table Salt
- B. Pure Water
- C. Aromatic compounds (like scents in flowers)
- D. Iron Nails

8. Organic chemistry is essential for doctors because _____ are organic molecules used to treat illnesses.

- A. Magnets
- B. Pharmaceuticals (medicines)
- C. X-rays
- D. Stone tools

9. What is the primary reason carbon is the foundation of life rather than other elements like metals?

- A. It is the heaviest element
- B. It can form stable, diverse structures
- C. It is the only element that can explode
- D. It is always a liquid at room temperature

10. True or False: Every single molecule that contains carbon is definitely a living thing.

- A. True
- B. False