

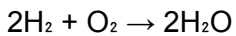
1. Physics: Motion and Forces

Which of the following represents a balanced force acting on an object?

- a) A stationary box on the floor.
- b) A car accelerating on a highway.
- c) A parachute falling with increasing speed.
- d) A ball rolling downhill.

2. Chemistry: Chemical Reactions

What type of reaction is represented by the following equation?



- a) Decomposition
- b) Combustion
- c) Synthesis
- d) Single displacement

3. Biology: Cell Structure

Which of the following cell organelles is responsible for energy production in both plant and animal cells?

- a) Chloroplast
- b) Nucleus
- c) Mitochondria
- d) Ribosomes

4. Earth Science: The Atmosphere

Which gas is the most abundant in Earth's atmosphere?

- a) Oxygen
- b) Carbon dioxide
- c) Nitrogen
- d) Hydrogen

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5. Physics: Energy

Which of the following is an example of potential energy?

- a) A rolling soccer ball.
- b) A compressed spring.
- c) A person running.
- d) A falling object.

1. **Answer: a) A stationary box on the floor.**

2. **Answer: c) Synthesis**

3. **Answer: c) Mitochondria**

4. **Answer: c) Nitrogen**

5. **Answer: b) A compressed spring.**

The logo for ADEPT Competition features a large, stylized letter 'A' in the background. The 'A' is composed of two parts: a grey, outlined triangle at the top and a solid orange shape at the bottom that curves around the left and right sides. The word 'ADEPT' is written in a bold, grey, sans-serif font across the middle of the orange part of the 'A'. Below 'ADEPT', the word 'Competition' is written in a smaller, grey, italicized sans-serif font.

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