Name: _____ **Date:** _____

Answer Key: My Super Engine: A Kindergarten Exercise Physiology Challenge

Young learners analyze how their bodies work like machines by comparing heart speeds and breathing patterns during different playground activities.

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1. If you are playing 'Freeze Dance' and you stop moving, what should happen to your heart beating against your chest?

Answer: B) It slowly begins to slow down

When we stop moving, our body doesn't need as much fuel, so the heart slows down to save energy.

2. When you run a very fast race, your lungs have to work extra hard to pull in more ____.

Answer: C) Air

Lungs take in air (oxygen) which acts like 'gas' for our muscles to keep them moving during exercise.

3. True or False: If you practice balancing on one foot every day, your brain and muscles learn to work together better.

Answer: A) True

This is a chronic adaptation; regular practice helps the nervous system and muscles communicate more efficiently.

4. Look at these four friends. Who is using the MOST energy right now?

Answer: C) Sam is climbing the tall monkey bars.

Climbing requires moving the whole body against gravity, which uses more energy than sitting, standing, or sleeping.

5. True or False: Your face might get red or sweaty when you run because your body is trying to cool its 'engine' down.

Answer: A) True

Exercise creates heat; sweating and blood moving to the skin (redness) are ways the body stays at a safe temperature.

6. After you do a big jump, your muscles feel tired because they used up their ____.

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Answer: A) Power

Muscles use chemical energy (power) for quick movements; once it is used up, they need a moment to recover.

7. Why do you think an athlete drinks water and rests after a long game?

Answer: B) To help their body repair and get stronger

Recovery mechanisms allow the body to fix small 'micro-tears' in muscles, making them stronger than before.

8. True or False: If you lift a heavy backpack every day, your muscles stay exactly the same size.

Answer: B) False

Regularly lifting heavy things causes muscles to adapt and grow stronger over time.

9. Imagine your body is a car. To make the car go fast, you need to push the pedal. In your body, your ___ is the pedal that pushes the blood faster.

Answer: B) Heart

The heart is the pump (or pedal) that controls the flow of blood and energy to the rest of the body.

10. Which activity would make it the HARD-EST to talk to a friend while you are doing it?

Answer: C) Sprinting as fast as you can to a cone

When we sprint, our body needs so much air that we can't spare enough to talk; this is a sign of high-intensity exercise.