

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Answer Key: Your Glowing World: 1st Grade Light & Energy Quiz

Examine how light powers solar toys and why neon signs glow using simple subatomic concepts for young scientists.

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**1. What tiny particles make up the light we see from a flashlight?**

**Answer:** A) Photons

In modern physics, we learn that light is made of tiny packets of energy called photons.

**2. True or False: Tiny particles in a neon sign use energy to make bright colors.**

**Answer:** A) True

Neon signs glow because the atoms inside get extra energy and release it as colorful light.

**3. A \_\_\_\_ panel uses light from the sun to make electricity for a house.**

**Answer:** B) Solar

Solar panels catch light energy (photons) and turn it into power we can use.

**4. Which of these things uses quantum science to help a doctor see inside your body?**

**Answer:** B) An MRI machine

MRI machines use the way tiny parts of our bodies react to magnets to take pictures of our insides.

**5. True or False: Lasers are special because all their light waves march together in one direction.**

**Answer:** A) True

Lasers work by organizing light particles so they all move in a very straight, powerful line.

**6. Everything in the world, including your toys, is made of tiny pieces called \_\_\_\_.**

**Answer:** A) Atoms

Atoms are the building blocks of everything we see and touch.

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**7. If you use a remote control to turn on a TV, what is traveling through the air?**

**Answer:** A) Invisible light

Remotes use invisible light signals (infrared) to tell the TV what to do.

**8. True or False: Some materials can let electricity flow perfectly if they are very, very cold.**

**Answer:** A) True

These are called superconductors! In modern physics, we study how they work when chilled.

**9. A \_\_\_ clock is used by satellites to tell the exact time for GPS maps.**

**Answer:** B) Atomic

Atomic clocks are super accurate because they use the steady 'heartbeat' of atoms.

**10. What do we call the special area in space where gravity is so strong that even light cannot get out?**

**Answer:** B) A black hole

Black holes are heavy objects in space that pull everything toward them, even light!