

Tiny Tech Wonders

Nanotechnology · Answer Key · 10 Questions

1. How small is a nanometer compared to a meter?

- A) One hundredth
- B) One thousandth
- C) One millionth
- D) One billionth**

2. Which special tool do scientists use to 'see' objects at the nanoscale?

- A) Magnifying glass
- B) Scanning electron microscope**
- C) Pair of binoculars
- D) Standard kitchen microscope

3. What happens to the color of gold when it is broken down into nanoparticles?

- A) It becomes invisible
- B) It stays bright gold
- C) It can turn red or purple**
- D) It turns completely black

4. What is the unit of measurement used to describe the size of nanoparticles?

- A) Nanometers**
- B) Centimeters
- C) Inches
- D) Light-years

5. What is a 'buckyball' in the world of nanotechnology?

- A) A round toy made of plastic
- B) A soccer-ball-shaped carbon molecule**
- C) A type of tiny robot
- D) A bouncy ball for babies

6. Which material is used to make strong, tiny tubes called carbon nanotubes?

- A) Plastic
- B) Aluminum
- C) Carbon**
- D) Rubber

7. Why do scientists like to use nanoparticles in sunscreen?

- A) To make it taste sweet
- B) To help it reflect or absorb harmful UV light**
- C) To make the bottle glow in the dark
- D) To turn the skin blue

8. Nanotechnology works with things that are smaller than the width of what?

- A) A human hair**
- B) A large tree
- C) A school bus
- D) A playground

9. What is the main goal of using nanotechnology in medicine?

- A) To make medicine taste like candy
- B) To help deliver medicine directly to sick cells**
- C) To make doctors grow taller
- D) To color pills bright colors

10. What kind of surface is a lotus leaf, which inspires nanotechnology for cleaning?

- A) Sticky and rough
- B) Hydrophobic and water-repellent**
- C) Very soft and fuzzy
- D) Brightly colored and flat