

## End of Quarter 2 Science Test Study Guide

1. **Plant and Animal Cells:** Be able to **locate** the following organelles on an animal and plant cell. Know the **function** of each of these organelles: **Nucleus, cell wall, cell membrane, vacuole, cytoplasm, mitochondria, chloroplast**
  2. Be able to state the difference between an animal and plant cell.
  3. **Inherited Traits and Learned Behaviors:** Know what an inherited trait is- examples: eye color, hair color, height, physical characteristics, fur color (animals), etc –These are all determined by a combination of genes that come from **both** parents, not just one.
  4. Know that learned characteristics are what we learn during our lifetime (riding a bicycle, swimming, etc)
  5. Know the difference between a learned characteristic and an inherited trait
  6. **Photosynthesis:** Photosynthesis- the process of plants making food; In order for photosynthesis to take place, plants need Carbon Dioxide, sunlight and water
  7. The product of photosynthesis = sugar (glucose) and oxygen
  8. **Investigations:** Be able to select an investigation that could be used to answer specific questions
  9. **Physical and chemical changes/properties:** Distinguish between physical and chemical changes and properties
  10. **Freezing, Melting, and Evaporation:** Understand the differences among freezing, melting, and evaporation; Understand factors that influence the rate at which different types of material freeze, melt, or evaporate
  11. **Heat Transfer:** Use information from an investigation to determine the method by which heat energy is transferred from one object or material to another. **Conduction, Convection or Radiation**
  12. **Tools for Science:** select a tool to solve a problem: microscope, telescope, star chart, hand lens, etc.
  13. **Plants and Animals Obtaining Energy:** Compare how plants and animals obtain energy- plants get their energy from the sun; animals get their energy from plants or other animals.
  14. **Fossils:** Fossils provide us with information from the past
  15. **Symbiosis:** Know the differences of the three different symbiotic relationships: **parasitism, commensalism, mutualism**
- \*NEW MATERIAL SINCE MID-QTR2 TEST**
16. **Adaptations:** Identify **physical and behavioral adaptations** that enable animals such as amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.
  17. **Ecosystems:** Describe the different types of nutritional relationships among **producers, consumers, herbivores, carnivores, omnivores, scavengers** and **decomposers** that exist among organisms in **food chains** and **food webs**