# How Do Cells Work Together?

Name: _____ Date: _____

Plant Tissue

- A _____ cell is an impressive example of God's design.
- _____ are God's building blocks.
- He also designed cells within an individual to work _____.
- In most plants and animals, cells that have _____ shapes and structures form tissues.
- A _____ is a large group of similar cells that work together to perform certain jobs in living things.
- The outermost layer in a plant leaf is made of _____ *tissue*.
- The cells of the epidermis form a _____ between the plant and outside world.
- They protect against water _____ and control gas _____ between the outside and inside of the leaves.
- Plants have their own system of specialized _____ tissues.
- One type of plant _____ tissue is called xylem.
- _____ carries water and nutrients from a plant's roots to its leaves.
- The cells that make up the xylem are like a system of _____.
- Each of these tube-like cells can stretch several _____.
- The xylem continues into the _____.
- Food in the form of _____ is made in leaves.
- Another type of transport tissue, called _____, carries sugars and other nutrients from the leaves to the rest of the plant.
- In a tree or woody plant, phloem tissue is found just inside the _____.
- What happens when you water a plant?
- First, the root cells _____ water and other nutrients such as dissolved minerals from the soil.
- This liquid travels upward through _____ in the plant's roots and stems.
- Finally, the water reaches the _____.
- Cells in the leaves use some of the water to make _____.
- The rest of the water _____ from the leaf.
- Evaporation serves a _____ purpose.
- It helps pull the water up from the _____ and stem.
- A plant uses the _____ it makes in many ways.

- It is used to provide _____ to all of the plant's cells.
- Sugars can be turned into _____.
- This is how a plant _____ sugar.
- Most plant roots and stems contain some _____ storage tissue.
- Some roots, such as sweet potatoes and yams, are _____ to store large quantities of starch.
- In other plants, such as carrots, the food storage tissue is formed by a _____ of stems and roots.
- Plants also use sugars to make _____, which is the main component of cell walls.
- _____, which is sticky because it contains sugar, travels through the phloem.
- This sap travels to the _____.
- Here the sugar the sap contains is used to _____ new leaves and flowers.
- Beavers and other animals may gnaw through the _____ of a tree to get some of the sugar themselves!
- Tiny insects called _____ will drill into the phloem of leaves and stems and drink the sweet liquid.

Plant Organs

- You know that each cell has its own specific _____.
- Together, many different cells form _____.
- In the same way, different kinds of tissues work together to form an _____.
- Roots, stems, leaves, flowers, and fruits are _____ _____.
- Each of these organs is made of several _____.
- Many _____ make up each tissue.
- All of them work _____ in the organ to perform a specific function.
- The _____ provide support and anchor the plant in soil.
- Root pairs pull _____ and _____ from soil and into the plant stems.
- _____ support the plant, carry nutrients and water where they are needed, and hold up the leaves so they can collect sunlight.
- _____ change carbon dioxide and water into food through the process of photosynthesis.
- The chief job of flowers and fruits is to produce _____.

- Organs work together in _____ _____.
- Most plants have _____ organ systems
  - the _____ system,
  - the _____ system (stems, leaves, buds, branches, or trunk),
  - and the _____ system (flowers, fruits, and seeds).
- All of the organs in the plant need the _____ the leaves provide.
- All three of these systems _____ on each other.
- The _____ system needs the water and minerals that the _____ system obtains from the soil.
- The root system needs the _____ that are manufactured in the _____ system.
- The two systems work together to provide _____ of the organs with everything the plant needs to grow and thrive.
- But these systems support the _____ system so that the plant species can continue.