

ACTION SCENARIO #1

You are a cell in an animal. You need food to stay alive. How will you get it?

ACTION SCENARIO #2

You are a cell in a plant. You need food to keep the plant alive. How will you get it?

ACTION SCENARIO #3

You are a cell in your teacher's leg. She is running and needs energy make the legs work. How will you get energy for the cells in the leg?

ACTION SCENARIO #4

You are a cell in a plant that is growing new leaves. You need energy for growth. How will you get the energy you need?

CELL JOB CARDS

NUCLEUS

You are the nucleus. Your job is to control the activities in the cell. You should stand in the center of the cell. If the cell needs something from the outside, you need to direct this process.

CELL MEMBRANE

You control what is allowed in and out of the cell. If the cell needs water or gases such as carbon dioxide or oxygen to come in or out, you will allow them to pass through.

CELL WALL

You are the stiff outer covering of a plant cell. Even though you are not living, you give protection and structure to the plant cell.

CHLOROPLAST

You are a green structure found in plant cells. You make your own food using sunlight, water, and carbon dioxide. After you make the food, you have oxygen left over. Be sure to send that to storage!

MITOCHONDRION

Your job is to store energy for the cell and release it when needed. Today, however, you are out of energy. You get energy from a process called respiration which requires sugar and oxygen. You will have carbon dioxide and water left over. Be sure to send this to storage!

VACUOLE

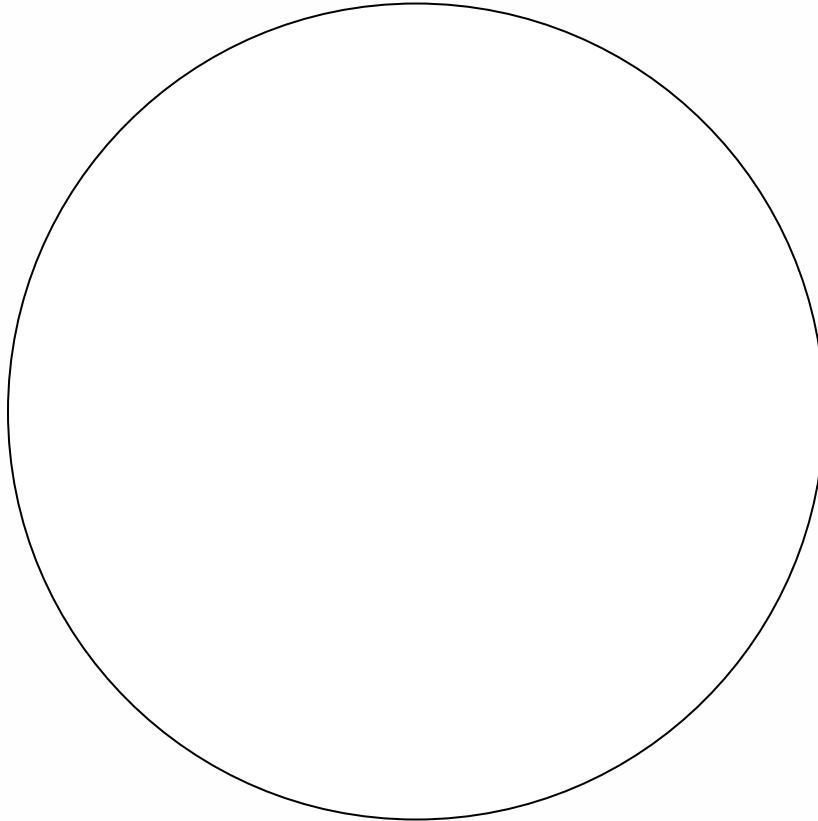
You are the storage center for the cell. You can hold a large amount of substances the cell needs, such as water, food (sugar), and waste. Remember, sometimes you can run low on these substances and today you happen to be out. Don't be afraid to say "NO" when asked for supplies!

Name _____

STOMATES LAB ACTIVITY RECORDING SHEET

RECORD

Draw your microscope observations. Label guard cells and a stoma.

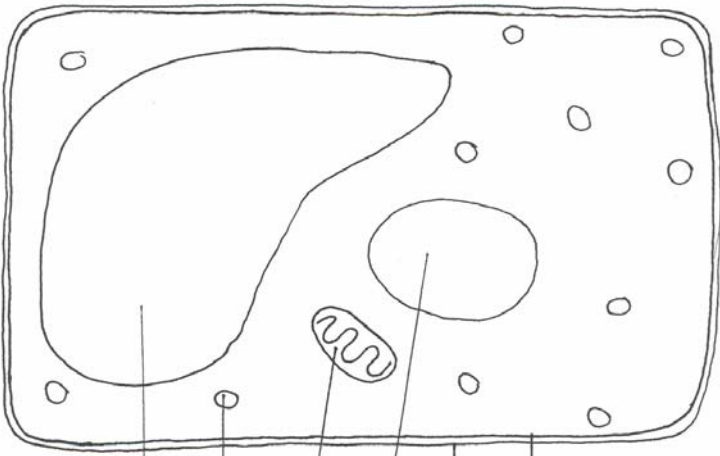


INFER

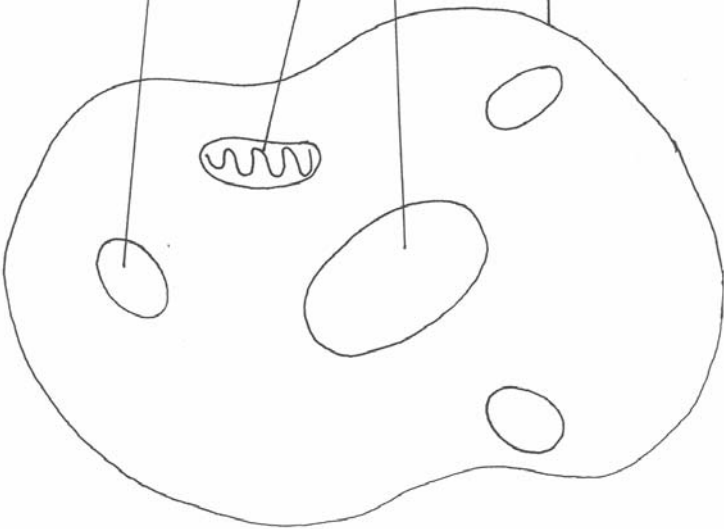
1. What would happen to the plant if the stomates were not able to close?

2. Does light or moisture have a greater impact on the opening and closing of stomates?

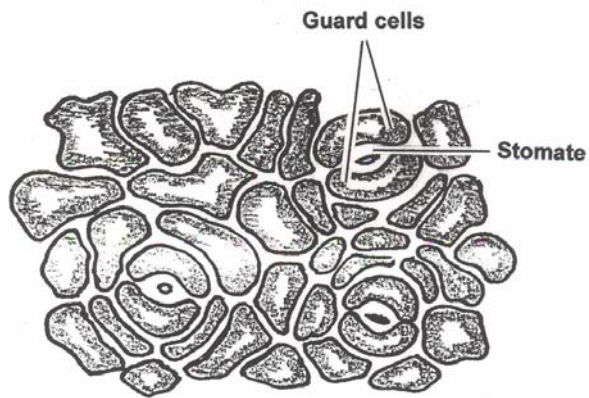
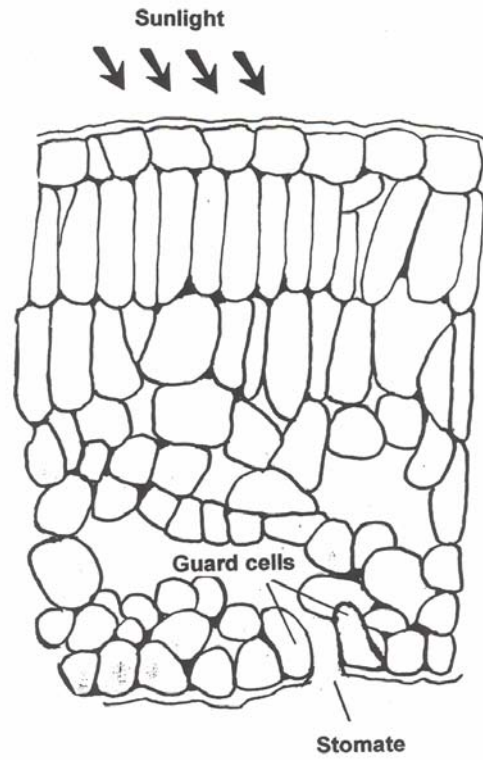
Plant Cell



Animal Cell



- Cell membrane
- Cell wall
- Nucleus
- Mitochondrion
- Chloroplast
- Vacuole



Stomate Transparency