

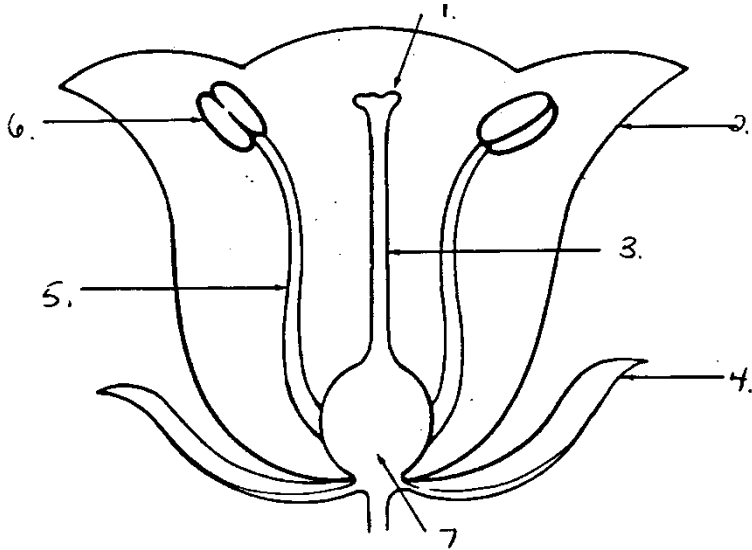
Name: \_\_\_\_\_

Period: \_\_\_\_\_

### Flowering Plants: Parts and Function

- Use your textbook or locate resources on Angiosperm fertilization to answer the following questions
- Anther, Carpel, Filament, Ovary, Petal, Sepal, Stamen, Stigma, Style

Label each structure below



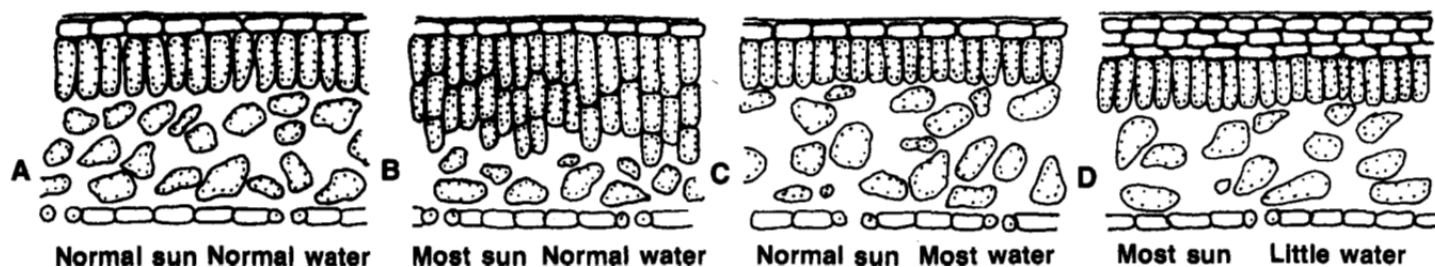
1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

8. Structures 1, 3, & 7 make up the structured female structure called the \_\_\_\_\_
9. Structures 5 & 6 make up the male structure called the \_\_\_\_\_
10. The ovule(s) is found within the \_\_\_\_\_
11. Which structure is the site of pollen production? \_\_\_\_\_
12. Which structure is the recipient of the pollen? \_\_\_\_\_
13. Which structure protects the reproductive parts and attracts pollinators? \_\_\_\_\_
14. The structure that will eventually become a fruit is the \_\_\_\_\_
15. The structure that holds the anther upright is the \_\_\_\_\_
16. Does a plant produce more pollen or more ovules? Explain.

## The Effect of Sunlight and Water on Leaves

The amount of sunlight and water a plant gets affects the cells of its leaves. They may develop more layers of cells or fewer layers of cells depending on the amount of sunlight and water they receive.

Study the drawings of leaf sections below. The levels of sunlight and water each leaf gets is given below each cross section. Compare the drawings of the leaf sections, and then answer the questions that follow.



1. What type of cells cause Leaf B to be thicker than Leaf A?
2. Does Leaf B get more or less sun than the other leaves?
3. What cell layer is thickest in Leaf C? Is Leaf C getting more water than Leaf A?
4. What nutrient do the extra cells in Leaf C store?
5. What is this stored nutrient used for in Leaf C?
6. Leaf D gets little water but lives in very bright sunlight. What differences do you notice in Leaf D?
7. How is Leaf D helped by having these differences?
8. Where might you find a plant with leaves like Leaf D?

## Tolerance in Plants

If you hiked up a mountain that was several thousand kilometers high, you might notice that plants growing at the bottom of the mountain are not all the same as those growing on top.

The air and soil on top of the mountain are cooler than at the bottom.

Some plants can grow only in warm weather, some can grow only in cold weather, and others can grow in warm and cold weather. The ability of a plant to live and grow in an unfavorable environment is called tolerance.

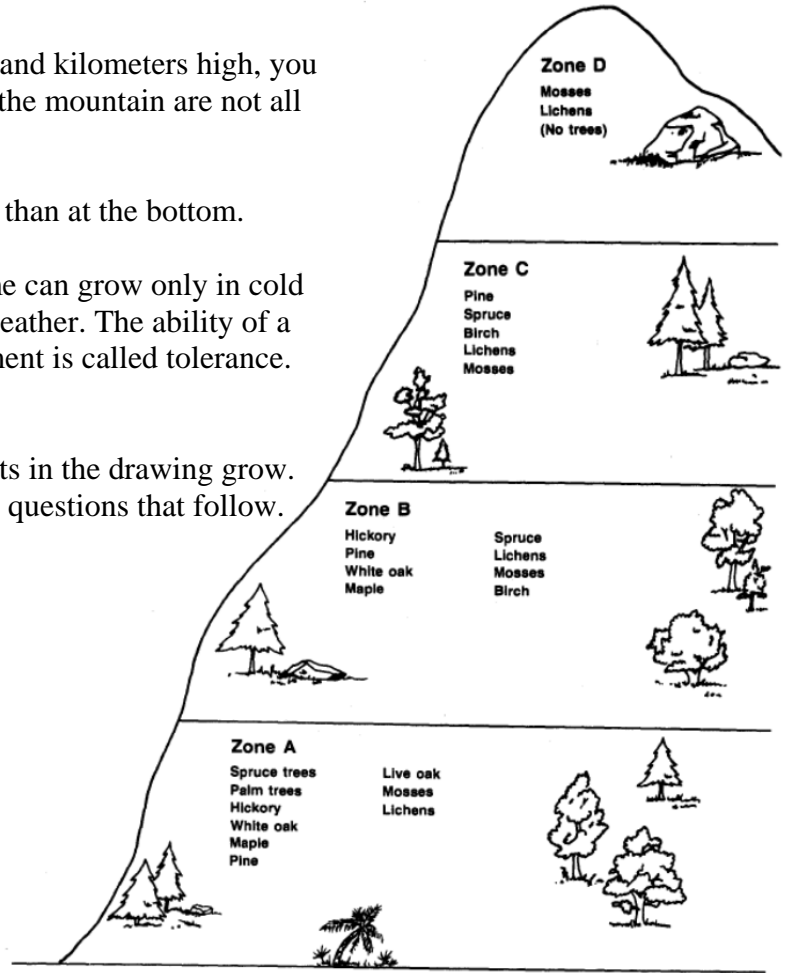
Look at the drawing. Then, fill in the table below.

Use check marks to show in which zones the plants in the drawing grow.

Use the table and the book to help you answer the questions that follow.

1. Which plant(s) grow in **all four** areas of the mountain? Explain your answer using the word tolerance

2. Which plant(s) grow in **only one** of the four areas? Explain your answer using the word tolerance.



3. Do spruce trees have the same tolerance as white oaks? Explain your answer

Plants	Zone A	Zone B	Zone C	Zone D
mosses				
white oak				
birch				
hickory				
pine				
live oak				
palm				
spruce				
maple				

## In What Biome Do I Live?

Use the following excerpts from these letters to determine in which biome each student is living. Write the name of the biome in the space provided. Some Biomes may be used more than once.

**Biome Bank:** Desert, Grasslands, Savannah, Taiga, Temperate Deciduous Forest, Tropical Rain Forest, Tundra

1. "Much of the northern part of the northern hemisphere is like it is here. Actually, about 20 percent of the land on Earth is like it is here. Soon, the short growing season will be over. I tried to dig in the frozen ground a few days ago, but I could only dig a few centimeters down. While I was digging, I saw an arctic hare. Maybe I will also see an arctic fox."
2. "I live near the Equator. We get a lot of rain here-last year we had about 450 centimeters of rain! There are many kinds of plants here. We have many trees that are about 45 meters tall. We also have and climbing plants. There are also many animals. Every day I see all kinds of birds, reptiles, and insects."
3. "All I can see for miles and miles is grass. There are only a few small trees and some shrubs to break the monotony. There really aren't too many different kinds of plants. Last year during the dry season, we had several small fires. But we have some interesting animals that live here-for example, zebras and elephants."
4. "It rained yesterday. We get more rain during some times of the year than others. Last night I heard a coyote howl. This morning I tried to dig in the ground to see how long the roots of the sod are. Would you believe that the roots are about one to two meters long? I couldn't dig that deep!"
5. "We live between the Tropic of Cancer and the Equator. There is usually a wide range of temperature between day and night. The soil is very sandy and there are few plants. It's hard to grow many plants here since we get very little rain. I see many reptiles, though. Most of them are nocturnal."
6. "We have four seasons. It is warm during the summer and cold during the winter. Most of the trees lose their leaves in the fall. Many birds migrate to a warmer climate just before the winter comes. I like to be outside, though, and watch the animals. I like watching squirrels, raccoons, and deer the best."
7. "Our house is between 50°N and 60°N and latitude. The winters are very cold. Sometimes it is as cold as -70°C! For this reason, most of the precipitation that we get is snow. The trees are shaped like cones so the snow falls off them and does not damage them. I like the summer! Too bad it only lasts for about two to four months!"
8. "The plants here are quite different from those I am familiar with. Leaf surfaces are reduced in area; some are only spines. The stems and branches are thick in order to store water. The roots of the plants spread over a large area and do not grow deep into the soil. After a rainfall, areas that were barren suddenly are covered with flowering plants."