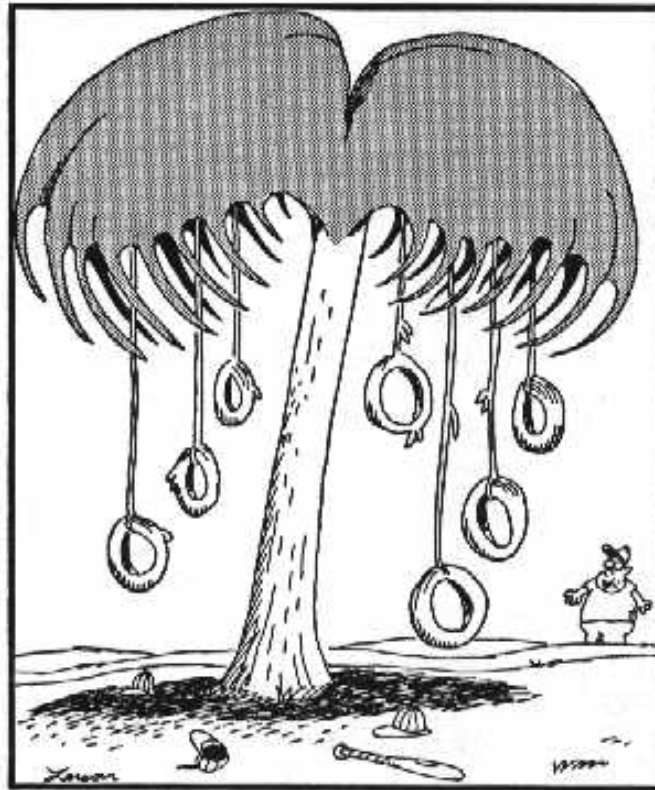


Name: _____

Per. _____

Date: _____

Plant & Fungi Project - L2 Biology - 2007



Her tentacles swaying seductively in the breeze, the Venus Kidtrap was again poised and ready.

This project will help you master and apply some of the ideas in the plant / fungus unit. Each person is responsible for turning in his/her own project. If there is any plagiarism, even on only one section, you will receive a zero for the entire project

This is a great chance for you to improve your grade, so do a good job. This project has been broken into sections. Each section should be punched, and placed in a plant project folder. This folder will be handed in on the due date, and will count as a test grade. Each page of this folder should be complete and neat. The last page of your project should be the attached grade sheet. This can serve as a check list as to what should be included in the folder.

Sources to help you will include your textbook, my website notes and other books in the classroom along with any you might have at home or find on the internet - caution- if you copy word for word (or too close to word for word) it will be considered plagiarism.

The relevant pages from our text are indicated for each section.

Due _____

Part 1: Types of plants:

(551-572)

Distinguish between the following types of plants in both paragraph form and using diagrams (pictures from the internet are OK, but you must tell me your source and print out the hard copy of the article that you used). (up to 4 pages)

- a) vascular and nonvascular plants
- b) nonseed-producing vs seed-producing plants
- c) gymnosperms vs angiosperms
- d) monocots vs dicots

Part 2 - Main Organs of a Plant:

(579-626)

One page for each:

a) Flower:

a) Using the completed diagram of a flower provided at the rear of this packet, label the structures, and list the functions of the petal, filament, anther, pistil, stigma, ovary, style, receptacle, and sepals,

b) Seed:

Get a peanut or pea and tear it apart. Find the embryo between the cotyledons. Draw and label, cotyledons and embryo. Answer the following questions on the same page as the diagram:

- 1) What kind of a seed is the peanut (or pea) (monocot or dicot)?
- 2) What are the differences between a monocot and a dicot seed?

c) Roots:

Find and look at the roots of a dandelion and grass. Answer the following questions:

1. What are the two main jobs of roots for plants?
2. What type of root systems do the dandelion and grass have?
3. What type of root system does a carrot have?
4. Why can dandelions survive the hot dry summer better than grass?

d) Stems:

Answer these questions:

1. What two types of vascular tissue are found in stems?
What does each type do?
2. When you buy lumber at Home Depot, which of these tissues are you buying?

e) Leaves - Use one page for each type of leaf

Find an example and diagram of these types of leaves:

- a) simple pinnate
- b) simple palmate
- c) compound pinnate
- d) compound doubly pinnate

Part 3 -Cross Section of a Leaf

(595-598)

Label and color the diagram of a leaf cross section that is provided at the back of this packet. Give the functions of each of the labeled parts. Terms to use include:

vein (contains xylem and phloem), **cuticle**, **palisade mesophyll**, **spongy mesophyll**, **guard cells**, **stomata**, **epidermis** and **chloroplasts**

Part 4 - Fungi:

Answer the following questions on a separate piece of paper, written neatly or typed.

1. Diagram / Describe the life cycle of the bread mold.
2. Diagram / Describe the life cycle of the mushroom.
3. Complete the attached worksheet entitled "3 types of fungi".

STRUCTURE OF A FLOWER

Name _____

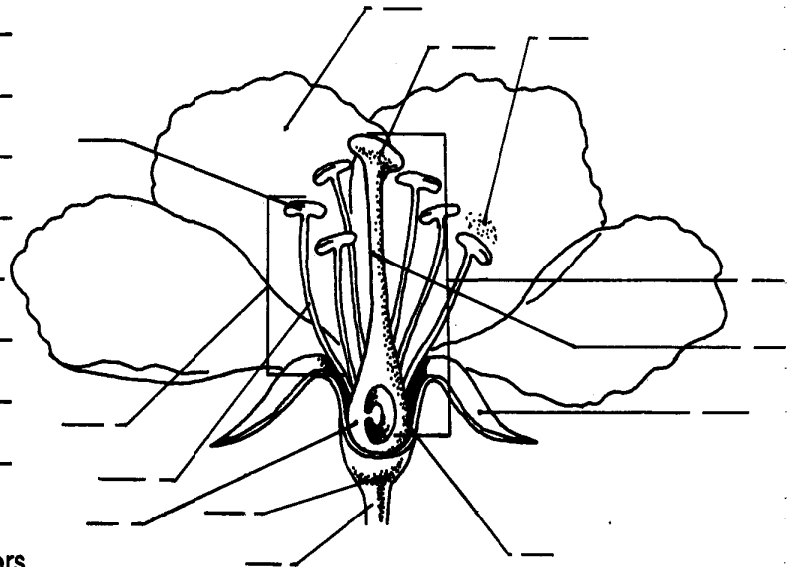
Label the parts of the flower in the diagram below. Give the purpose/function of each part.

- a. ovary _____
- b. style _____
- c. stigma _____
- d. sepal _____
- e. receptacle _____
- f. pedicel _____
- g. petal _____
- h. filament _____
- i. anther _____
- j. pollen grain _____

- k. pistil _____

- l. stamen _____

- m. ovule _____



Fill in the blanks with the correct answers.

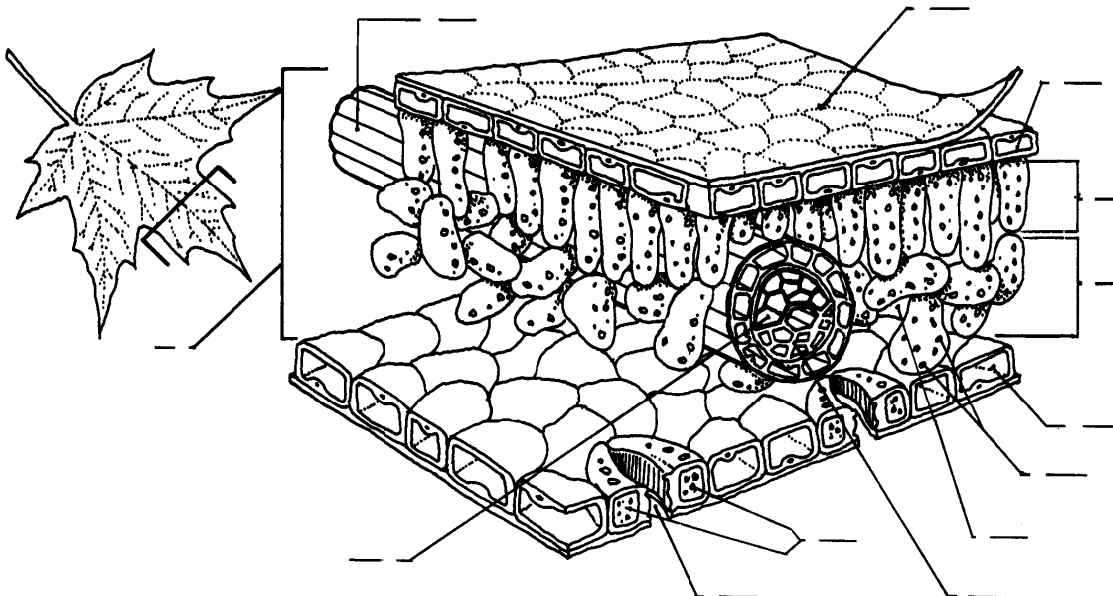
If there are to be more flowers, _____ must take place. In pollination, pollen is transferred from the _____ to the _____. In detail, pollen is transferred from the _____ of the stamen to the _____ of the pistil. In some flowers, pollen falls on the stigma of the _____ flower. _____-pollination occurs. In other flowers, pollen from _____ flower falls on the stigma of a _____ flower. _____-pollination takes place.

CROSS SECTION OF A LEAF

Name _____

Label the following parts of the leaf in the diagram below. Give the purpose/function of each part.

- a. lower epidermis _____
- b. upper epidermis _____
- c. palisade layer _____
- d. cuticle _____
- e. stomate _____
- f. guard cells _____
- g. vein (fibrovascular bundle) _____
- h. spongy layer _____
- i. air space _____
- j. xylem _____
- k. phloem _____
- l. chloroplasts _____
- m. mesophyll _____

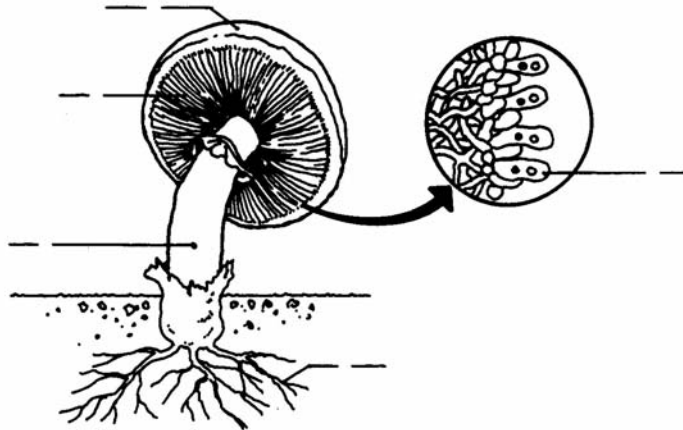


THREE TYPES OF FUNGI

Name _____

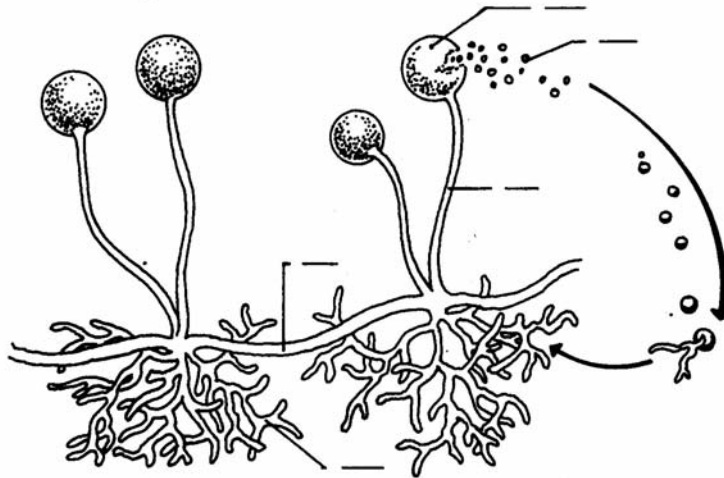
Label the following parts on the diagram of a mushroom below.

- a. cap
- b. gills
- c. stipe
- d. basidia
- e. rhizoids



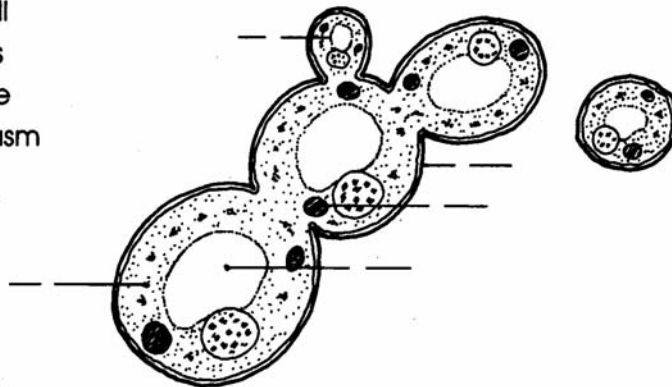
Label the following parts on the diagram of bread mold below.

- a. sporangia
- b. spores
- c. sporangiophore
- d. stolon
- e. rhizoid



Label the following parts on the diagram of a yeast cell below.

- a. bud
- b. cell wall
- c. nucleus
- d. vacuole
- e. cytoplasm



NAME: _____

PER. _____

DATE: _____

PLANT PROJECT GRADE SHEET

1. Types of Plants: 1 2 3 4 5 _____
(1 too brief, sloppy — 5 complete, well edited, neat)
2. Labeled Flower: 1 2 3 4 5 _____
(1, Sloppy, incomplete — 5 complete, well labeled, neat)
3. Seed 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
4. Roots 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
5. Stems: 1 2 3 4 5 _____
(1, incomplete sloppy, poorly edited — 5 complete, neat, well edited)
6. Leaves 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
7. Leaf cross section 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
8. Fungi life cycles 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
9. Fungi worksheet 1 2 3 4 5 _____
(1, incomplete, inaccurate, sloppy — 5, complete, accurate, neat)
10. Neatness, quality of presentation: 1-10 _____
(1, incomplete, inaccurate, sloppy — 10, complete, accurate, neat)

GRADE: ((_____)/ 55) X 100 = _____ %