

FUN FUNGUS LAB

Name _____

Date _____ Per ____

MUSHROOM STATION

Labeled drawing of mushroom:

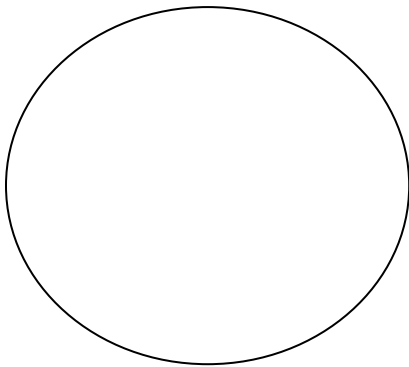
Label the **cap**, **gills**, and **stalk**



Use the mushroom key to identify these mushrooms:

What is mushroom A? _____ Mushroom B? _____

MOLD and PENICILLIN STATION



Mold slide

Label a spore case

Is it ok to eat food that mold has grown on? _____

Name 2 foods that mold is added to on purpose.

Penicillin was the first antibiotic. What do antibiotics kill?

When was Penicillin discovered? _____

MYSTERY MUSHROOM STATION

Look at the picture chart and the mystery mushroom.

Try to identify the mystery mushroom (hint: look near the brown mushrooms). _____

Find the chanterelle (under yellow/brown). Find another mushroom that looks almost like it but is poisonous. _____

Why shouldn't you go mushroom hunting unless you're *sure* you know what you're doing?

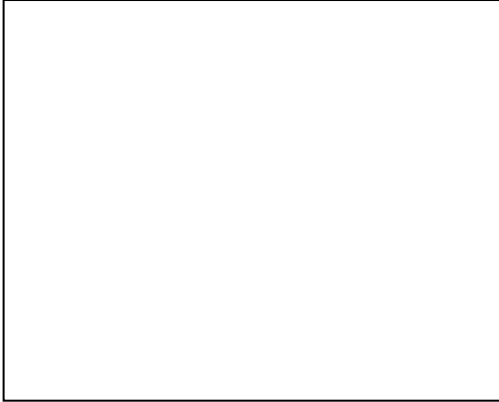
Which reddish mushroom is used to poison houseflies? _____

Which yellow- brown mushroom causes coma then death? _____

LICHEN STATION

What is a lichen?

Lichen drawing:



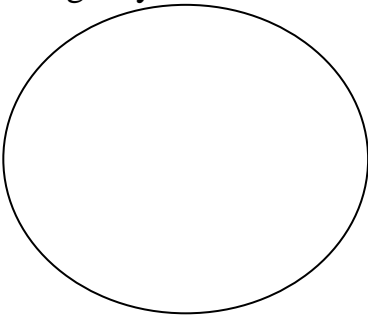
What does the algae provide to help the fungus? _____

What does the fungus provide?

What is a pioneer? _____

YEAST STATION

Drawing of yeast:



How are yeast different from other fungi?

What is budding? _____

Where could you find yeast? _____

What causes the bubbles? _____

Mushrooms

Mushrooms are the most familiar members of Kingdom Fungi. Many are edible, but some are very poisonous. Never eat a wild mushroom! Many mushrooms that are safe to eat have look alikes that can be fatal if you eat them!

Mushrooms grow in damp places, usually around trees or on fallen trees. Mushrooms eat dead things that are rotting (falling apart). They absorb the nutrients from dead things through their “roots”. You could think of it as recycling.

Examine these mushrooms to see if you can find the structures in the drawing below. Then draw one or more of the mushrooms and label the structures.

A MUSHROOM KEY

Dichotomous Keys are used to identify species. You are going to find out what 2 of these mushrooms are.

Start with question #1 of the key. Examine the “A” mushroom. Answer (**on your paper-don’t write on this paper!**) question #1, and then go to the question the key tells you.

Keep answering questions until you arrive at the name of the mushroom.

Repeat with mushroom “B”.

.....

- | | |
|---|--|
| 1. Is the mushroom brown? | Yesgo to question 2
No.....go to question 3 |
| 2. Does the mushroom have a thick stalk?
(more than 3 cm) | Yes.....go to question 4
No.....field mushroom |
| 3. Is the mushroom white? | Yes.....go to question 5
No.....Chanterelle mushroom |
| 4. Is the diameter of the mushroom cap
greater than 8 cm.? | Yes.....Portobello mushroom
No.....Italian brown mushroom |
| 5. Does the mushroom have a cap? | Yes.....Common mushroom
No.....Oyster mushroom |

MOLDS

Molds are a type of fungus related to yeast. However, molds are different from yeast because they are multicellular. Yeast are unicellular.

Molds grow on leftover foods such as bread, cheese and fruit. The molds can poison the food, so never eat anything moldy! Most of the mold is actually growing *under* the surface of the food.

Not all molds are bad for you. The mold that makes blue cheese blue is harmless. Mold is used to make tofu and soy sauce. The famous medicine *Penicillin* is an antibiotic made of mold.

Draw the mold under the microscope and label the fruiting bodies.

LICHEN

Lichens are actually organisms formed from fungus and algae living together. The fungus provides water and minerals for the algae. The algae (being small plants) make food through photosynthesis.

Lichens can often grow where little else can. They can be found on bare rocks at the North Pole or in the dry desert! They are also found on trees and rocks all over the world. They can be quite colorful; red and orange lichens are common.

Lichens are often one of the first living things in rocky or barren areas. Lichens break cracks into rock with acids. We call these types of living things pioneers because they come to an area first, but then other living things grow up after them.

Look at the lichen under the dissecting scope and draw what you see.

Yeast

Though most fungi are multicellular, yeasts is one single cell.

Yeasts reproduce by budding. This means that a new yeast grows out of the parent yeast, as in the drawings below.

Yeasts like dark, warm, moist places. They feed on sugars. Yeast is used to make bread rise. The yeast make millions of tiny bubbles in the dough. If yeast did not exist, we would eat very dense, flat bread.

Yeast do cellular respiration, like all living things. They breathe out Carbon Dioxide created by the mitochondria.

Draw the yeast on the slide on high power.

