

Name:

# FABULOUS FUNGI FACTS

**fungus** (plural: fungi) = a spore-producing organism with complex cells and no chlorophyll

## What are Fungi?:

- eukaryotic
- consumers that ABSORB food from environment
- decomposers
- mostly multicellular
- reproduce with spores
- classified (grouped) by spore structure
- bodies made of HYPHAE

## Fungi Vocabulary *(Define the following terms. All info to complete these facts can be found on pages 88-95.)*

hyphae = \_\_\_\_\_  
\_\_\_\_\_

fruiting bodies = \_\_\_\_\_  
\_\_\_\_\_

budding = \_\_\_\_\_  
\_\_\_\_\_

## Reproduction of Fungi:

Why would it be advantageous (helpful) to produce millions of spores?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Two slices of bread are placed on a table, one with a cover, one without. On which slice of bread will mold first start growing? Explain **why**...

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Roles of Fungi in Nature:**

***ENVIRONMENTAL RECYCLING***

During a hike at Lone Pine State Park you notice some mushrooms growing on a log. Describe how the mushrooms use the log as a food source. Include information on what mushroom structures play a role in the process.

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What if all the fungi in a forest disappeared? How might the ecosystem be affected?

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***DISEASE FIGHTING FUNGI***

Why was Fleming's discovery an accident?

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How did Fleming's discovery enhance medical science?

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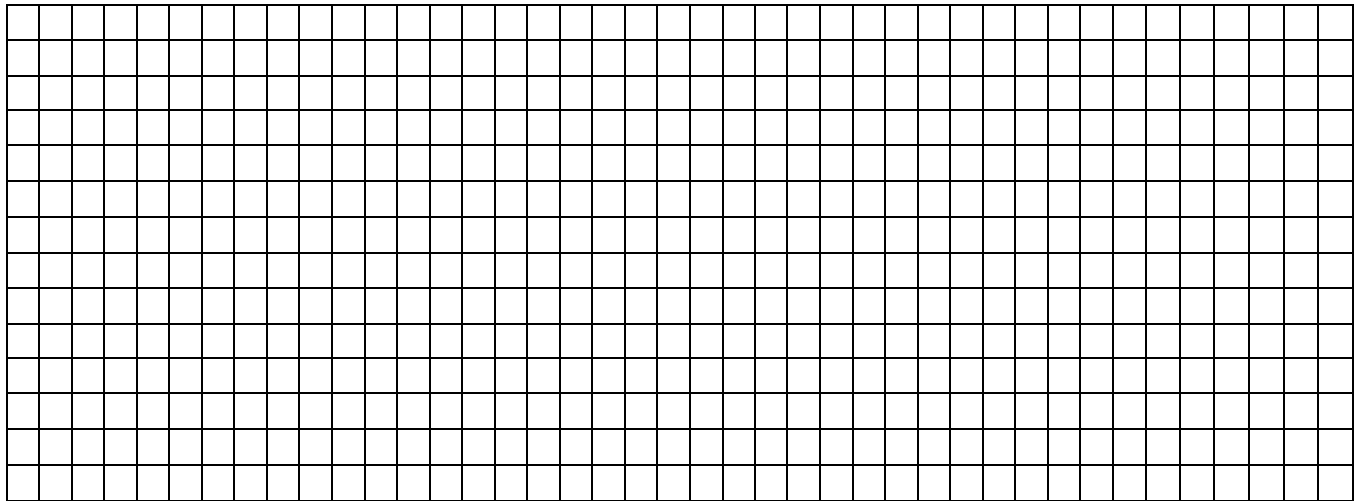
*Penicillium notatum* is the scientific name of the fungus that produces penicillin. Circle the Genus name.

**FOOD AND FUNGI**

Several seventh grade students conducted an experiment using a fungus called yeast. Yeast is a unicellular fungus used to make bread rise and ferment grapes to make wine. When yeast cells feed on sugars in dough or fruit it creates carbon dioxide gas and alcohol as waste products (fermentation). The students tested yeast and different temperatures of water. They put a yeast and sugar solution in a test tube and covered the mouth with a balloon. They placed the test tubes in a water bath and measured the circumference of the balloon over time.

Graph the results below using a triple line graph. Include a key, label axes, and title the graph.

| <b>DATA TABLE: CO2 Production By Yeast (balloon circumference)</b> |                   |                   |                   |                   |
|--|-------------------|-------------------|-------------------|-------------------|
| <i>BOTTLE</i>  | <i>10 minutes</i> | <i>20 minutes</i> | <i>30 minutes</i> | <i>40 minutes</i> |
| Ice water (32 F)   | 0 cm              | 0 cm              | 0 cm              | 0 cm              |
| Room temperature (72 F)  | 5 cm              | 8 cm              | 12 cm             | 15 cm             |
| Warm water (115 F)   | 10 cm             | 18 cm             | 25 cm             | 35 cm             |



I make refrigerator rolls at Thanksgiving which allow for the dough to rise in the refrigerator overnight (as opposed to rising the dough in a warm place in a few hours like most roll recipes). Using the results of this lab explain **WHY** it takes OVERNIGHT to rise the dough!

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**DISEASE CAUSING FUNGI**

In what ways are fungi bad for plants and animals? Give specific examples.

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**FUNGUS-ROOT ASSOCIATIONS**

Examine the graph on p. 94. Answer the **four** questions about the experiment examining root fungi interactions:

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2. 

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3. 

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4. 

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**LICHENS**

Lichen is a symbiotic relationship between an algae and a fungus. Explain how the two organisms both benefit from their symbiotic relationship.

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