Name_____ Date_____

Fungus Among Us

Fungus was once grouped with plants, but new research indicates that fungi are actually more closely related to animals. Fungi form their own kingdom in the five-kingdom classification system. Fungi are **eukaryotes** and most are multicellular. As eukaryotic organisms, they have cells with a nucleus and other membrane-bound organelles.

Fungi are **heterotrophs**. This means that they cannot make their own food. They acquire food through the process of **absorption**. Fungi secrete powerful enzymes into the environment around them. These break down complex molecules into simpler ones that the fungi can absorb and use.

Fungi play important roles as decomposers, parasites, and symbiotic organisms in an ecosystem. Decomposing fungi absorb nutrients from nonliving material such as fallen logs or dead animals. Parasitic fungi absorb nutrients from living hosts. Fungi that act as parasites often infect plants.

Other fungi take part in **mutualistic symbiosis**. Symbiosis means "living together." A mutualistic symbiosis is helpful for both types of organisms involved. Some mutualistic fungi benefit their plant partners by helping them to absorb minerals from the soil more easily. One example of this is **mycorrhizae**, which is a mutually beneficial association between fungi and plant roots.

Fungi have a complex life cycle. They reproduce by releasing **spores**. Many spores are produced which are then carried by wind or water to a place suitable for them to germinate. If you have ever left out a slice of bread or kept cheese around too long, you can see the result of the invisible fungal spores that found the food a great place to germinate. The "furry" stuff you see is **mycelia**, which is the fungal structure that forms once the spores begin to germinate.

The fungi are a diverse group. Fungi include organisms such as molds, yeasts, and mushrooms. There are some fungi that are harmful to humans and/or plants, but there are also lots of beneficial uses of fungi. Yeasts, for example, have been used by humans for thousands of years to raise bread

and ferment alcoholic beverages, and truffles are a type of fungi that are highly sought after by gourmet cooks.

Fungi's role as decomposer can be both good and bad. The decomposing of forest litter, for example, is a necessary process, but when fungi attack fruit it can be a problem. Historically, structures, clothing, and many other things have been destroyed by mold and the infiltration of mold into modern day homes continues to be a problem.

Name_____ Date_____

Fungus Among Us

Questions

1. True or False: Fungi form their own kingdom.

2. True or False: Fungi have cells that lack a nucleus.

3. Fungi cannot make their own food, so they are classified as _____.

4. Fungi act as decomposers, _____, and symbiotic organisms in the ecosystem.

5. Symbiosis means living _____.

6. _____ is a mutualistic symbiosis between fungi and plant roots.
   a. mycelia
   b. spores
   c. mycorrhizae
   d. mold

7. Fungi reproduce by releasing _____.

8. The "furry" structures that grow on bread left out are called _____.
   a. mycelia
   b. spores
   c. mycorrhizae
   d. mold

9. Give two examples of fungi.

10. List a beneficial use of fungi.

Name_____ Date_____

Fungus Among Us

Answer Key

1. **True** or False: Fungi form their own kingdom.

2. True or **False**: Fungi have cells that lack a nucleus.

3. Fungi cannot make their own food, so they are classified as **heterotrophs**.

4. Fungi act as decomposers, **parasites**, and symbiotic organisms in the ecosystem.

5. Symbiosis means living **together**.

6. _____ is a mutualistic symbiosis between fungi and plant roots.
   a. mycelia
   b. spores
   c. mycorrhizae
   d. mold

7. Fungi reproduce by releasing **spores**.

8. The "furry" structures that grow on bread left out are called _____.
   a. mycelia
   b. spores
   c. mycorrhizae
   d. mold

9. Give two examples of fungi. **Answers will vary.**

10. List a beneficial use of fungi. **Answers will vary.**