

Fungi are Alive!

Cross-Curricular Focus: Life Science



You might think that all living things are classified as either plants or animals, but there are some mysterious little organisms which are neither, yet are still alive. Many are invisible, hiding deep in the ground or floating silently on the air. Unlike plants, they do not rely on the heat or light of the sun for survival. They have no chlorophyll and do not create food through photosynthesis. They must find a source of nutrients outside themselves. They are very adaptable to any weather conditions. If temperatures fall too low to support life, they go into a deep sleep. This sleep is like the hibernation state that some animals use during the coldest part of the winter. In this inactive state, they wait for living conditions to get better.

These mysterious little creatures are all around us. We call them **fungi**, and we even use their extraordinary abilities to help us produce some of our favorite foods. If you enjoy biting into a nice, fluffy piece of bread, you can thank the yeast that helped the bread rise. Yes, yeast is a **fungus**. If you like mushrooms on your pizza or in your salad, you are eating fungi, too.

Because of fungi, we are able to control nasty infections with antibiotics. You may have heard of the most common antibiotic: penicillin. Dr. Alexander Fleming discovered penicillin in 1928 completely by accident. He left his science experiment out on the counter instead of cleaning up after himself. When he came back from his vacation, a strange bluish fungus was growing on it. Penicillin had been discovered.

As people become more aware of better ways to meet our survival needs without harming our planet, we are finding more and more uses for fungi. We can create pesticides to control insects and make detergents that are more Earth-friendly. It makes sense that fungi can do things without harming Earth. They have been turning dead plant materials into rich soil for thousands of years. They eat the nutrients that would otherwise be wasted. Without them, we'd be walking around on thick layers of dead leaves and other discarded plant materials.

Although there are many good things about fungi, we must not forget that some fungi are harmful. There are certain varieties that will make us sick or give us skin reactions, like athlete's foot. It is important to be aware of the various types of fungi. We can benefit from the good fungi and protect ourselves from the harmful ones.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why can't fungi make their own food using photosynthesis?

2) Name at least two ways that fungi can be beneficial for us.

3) Give an example of one way that fungi can be harmful for us.

4) What do fungi do when it gets too cold for them?

5) Imagine a world with no fungi. How would their absence impact your life?

Fungi are Alive!

Cross-Curricular Focus: Life Science



You might think that all living things are classified as either plants or animals, but there are some mysterious little organisms which are neither, yet are still alive. Many are invisible, hiding deep in the ground or floating silently on the air. Unlike plants, they do not rely on the heat or light of the sun for survival. They have no chlorophyll and do not create food through photosynthesis. They must find a source of nutrients outside themselves. They are very adaptable to any weather conditions. If temperatures fall too low to support life, they go into a deep sleep. This sleep is like the hibernation state that some animals use during the coldest part of the winter. In this inactive state, they wait for living conditions to get better.

These mysterious little creatures are all around us. We call them **fungi**, and we even use their extraordinary abilities to help us produce some of our favorite foods. If you enjoy biting into a nice, fluffy piece of bread, you can thank the yeast that helped the bread rise. Yes, yeast is a **fungus**. If you like mushrooms on your pizza or in your salad, you are eating fungi, too.

Because of fungi, we are able to control nasty infections with antibiotics. You may have heard of the most common antibiotic: penicillin. Dr. Alexander Fleming discovered penicillin in 1928 completely by accident. He left his science experiment out on the counter instead of cleaning up after himself. When he came back from his vacation, a strange bluish fungus was growing on it. Penicillin had been discovered.

As people become more aware of better ways to meet our survival needs without harming our planet, we are finding more and more uses for fungi. We can create pesticides to control insects and make detergents that are more Earth-friendly. It makes sense that fungi can do things without harming Earth. They have been turning dead plant materials into rich soil for thousands of years. They eat the nutrients that would otherwise be wasted. Without them, we'd be walking around on thick layers of dead leaves and other discarded plant materials.

Although there are many good things about fungi, we must not forget that some fungi are harmful. There are certain varieties that will make us sick or give us skin reactions, like athlete's foot. It is important to be aware of the various types of fungi. We can benefit from the good fungi and protect ourselves from the harmful ones.

Name: Key

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Actual wording of answers may vary.

1) Why can't fungi make their own food using photosynthesis?

They have no chlorophyll.

2) Name at least two ways that fungi can be beneficial for us.

Example of correct answer: They taste good and they control infections.

3) Give an example of one way that fungi can be harmful for us.

Example of correct answer: They make us sick.

4) What do fungi do when it gets too cold for them?

They go into an inactive state until it warms up.

5) Imagine a world with no fungi. How would their absence impact your life?

student's choice