Name: _____ Date: _____

How Plants Make Food

Circle group

Plants make their own food, but animals can't. This is called photosynthesis. It happens mostly in the leaves.

A plant needs three things for photosynthesis. It needs sunlight, water, and carbon dioxide. Roots soak up water from the soil. The water goes up the stem to the leaves. Carbon dioxide is a gas in the air. It gets in the leaf through holes too small to see without a microscope.

In the leaf, cells hold a green stuff called chlorophyll. Chlorophyll takes in energy from sunlight. The plant uses that energy to turn water and carbon dioxide into sugar. The sugar is the plant's food. It gives the plant energy to grow. Some of it is stored in roots, stems, fruits, and seeds.

Photosynthesis makes one more thing. As the plant makes sugar, it lets oxygen out through the same tiny holes. Animals and people need oxygen to breathe.

So plants feed themselves and help all animals on Earth. They give us the oxygen we breathe. Most food chains start with them.

Questions

1. What is photosynthesis?

_____

_____

2. What three things does a plant need for photosynthesis?

_____

_____

3. How does water get to the leaves?

_____

_____

4. What does chlorophyll do?

_____

_____

5. What two things does photosynthesis make?

_____

_____

6. Why do animals need plants?

_____

_____

Words to know

photosynthesis: the way plants use sunlight, water, and carbon dioxide to make food
carbon dioxide: a gas in the air that plants take in
chlorophyll: the green substance in leaves that captures energy from sunlight
oxygen: a gas in the air that people and animals need to breathe
energy: the power to do work or make things change

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Plants Make Food

Triangle group

Unlike animals, plants make their own food. The process is called photosynthesis, and it happens mostly in the leaves.

A plant needs three things for photosynthesis: sunlight, water, and carbon dioxide. Roots soak up water from the soil, and the water travels up the stem to the leaves. Carbon dioxide is a gas in the air. It enters the leaf through tiny holes that are far too small to see without a microscope.

Inside the leaf, cells hold a green substance called chlorophyll. Chlorophyll captures energy from sunlight. The plant uses that energy to turn water and carbon dioxide into sugar. The sugar is the plant's food. It gives the plant energy to grow, and some of it is stored in roots, stems, fruits, and seeds.

Photosynthesis makes something else, too. As the plant makes sugar, it lets oxygen out into the air through the same tiny holes. Animals, including people, need oxygen to breathe.

So plants feed themselves, and they help every animal on Earth. They give us the oxygen we breathe, and they are the starting point of most food chains.

Questions

1. What is photosynthesis?

_____

_____

2. What three things does a plant need for photosynthesis?

_____

_____

3. How does water get to the leaves?

_____

_____

4. What does chlorophyll do?

_____

_____

5. What two things does photosynthesis make?

_____

_____

6. Why do animals depend on plants?

_____

_____

Words to know

photosynthesis: the way plants use sunlight, water, and carbon dioxide to make food
carbon dioxide: a gas in the air that plants take in
chlorophyll: the green substance in leaves that captures energy from sunlight
oxygen: a gas in the air that people and animals need to breathe
energy: the power to do work or make things change

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Plants Make Food

Square group

Unlike animals, plants are capable of producing their own food. This process, known as photosynthesis, takes place primarily in the leaves.

Photosynthesis requires three ingredients: sunlight, water, and carbon dioxide. Roots absorb water from the soil, and the water travels upward through the stem to the leaves. Carbon dioxide, a gas present in the air, enters the leaf through microscopic openings that are far too small to observe without a microscope.

Within the leaf, cells contain a green substance called chlorophyll, which captures energy from sunlight. The plant harnesses that energy to convert water and carbon dioxide into sugar. This sugar serves as the plant's food, supplying the energy it needs for growth, and a portion of it is stored in roots, stems, fruits, and seeds.

Photosynthesis generates an additional product as well. While the plant manufactures sugar, it releases oxygen into the atmosphere through those same microscopic openings. Animals, including human beings, depend on oxygen in order to breathe.

Consequently, plants not only nourish themselves but also support every animal on Earth. They provide the oxygen we breathe, and they form the foundation of most food chains.

Questions

1. What is photosynthesis, and where does it primarily occur?

_____

_____

2. Name the three ingredients that photosynthesis requires.

_____

_____

3. Trace the path water follows to reach the leaves.

_____

_____

4. What is the function of chlorophyll?

_____

_____

5. Identify the two products of photosynthesis.

_____

_____

6. Explain why animals depend on plants.

_____

_____

Words to know

photosynthesis: the way plants use sunlight, water, and carbon dioxide to make food
carbon dioxide: a gas in the air that plants take in
chlorophyll: the green substance in leaves that captures energy from sunlight
oxygen: a gas in the air that people and animals need to breathe
energy: the power to do work or make things change

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: How Plants Make Food

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: How Plants Make Food

Easier · 172 words · Flesch-Kincaid grade 3.9

1. The way plants make their own food. It happens mostly in the leaves.
2. Sunlight, water, and carbon dioxide.
3. Roots soak it up from the soil. It goes up the stem.
4. It takes in energy from sunlight.
5. Sugar, which is the plant's food, and oxygen.
6. Plants give off the oxygen animals breathe, and most food chains start with plants.

Triangle: How Plants Make Food

This passage · 183 words · Flesch-Kincaid grade 5.9

1. The process by which plants make their own food. It happens mostly in the leaves.
2. Sunlight, water, and carbon dioxide.
3. Roots soak it up from the soil, and it travels up the stem.
4. It captures energy from sunlight.
5. Sugar, which is the plant's food, and oxygen.
6. Plants give off the oxygen animals breathe, and they are the starting point of most food chains.

Square: How Plants Make Food

Harder · 188 words · Flesch-Kincaid grade 9.6

1. The process by which plants produce their own food. It takes place primarily in the leaves.
2. Sunlight, water, and carbon dioxide.
3. Roots absorb it from the soil, and it travels upward through the stem to the leaves.
4. It captures energy from sunlight.
5. Sugar, which is the plant's food, and oxygen.
6. Plants release the oxygen animals breathe, and they form the foundation of most food chains.