Name: _____ Date: _____

Vanilla Flowers and the Helping Human Hand

Circle group

The flavor of vanilla comes from a long, thin pod. The pod grows on a vine. The vine is a kind of orchid. A flower must be pollinated before it makes a pod. Pollen has to move from one part of the flower to another.

Where vanilla first grew, a small native insect did this job. In many other places, that insect does not live. So farmers pollinate each flower by hand.

Each flower opens for just one morning. A worker uses a small stick to move the pollen at the right time. If the worker misses the morning, there is no pod. A farmer may check hundreds of vines each day.

Picked pods are green. They have almost no smell. They are warmed and dried in the sun for many weeks. They turn dark brown and wrinkled. The rich smell grows strong.

Hand work and long waiting make real vanilla cost more.

Questions

1. What part of the vanilla plant gives the flavor?

_____

_____

2. What kind of plant is vanilla?

_____

_____

3. Why do farmers pollinate by hand in many places?

_____

_____

4. How long does a vanilla flower stay open?

_____

_____

5. What happens to the pods after they are picked?

_____

_____

6. Why does real vanilla cost more than many flavors?

_____

_____

Words to know

pod: a long case that holds seeds
orchid: a kind of flowering plant with unusual blooms
pollinated: given pollen so a flower can make seeds or fruit
wrinkled: covered with small folds or lines

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: _____

Vanilla Flowers and the Helping Human Hand

Triangle group

The flavor of vanilla comes from a long, thin pod. That pod grows on a vine, a kind of orchid. To get a pod, a flower must first be pollinated. Pollen has to move from one part of the flower to another.

In the place where vanilla first grew, a small native insect did this job. In many other places, that insect does not live. So farmers must pollinate each flower by hand.

Each vanilla flower opens for only a single morning. A worker has to find it and use a small stick to move the pollen at just the right time. If the worker misses the morning, there will be no pod. A farmer may check hundreds of vines each day.

When the pods are picked, they are green and have almost no smell. They are warmed, left to sweat, and dried in the sun over many weeks. Slowly they turn dark brown and wrinkled, and the rich smell grows stronger.

Hand work and long waiting are why real vanilla costs more than many other flavors.

Questions

1. What part of the vanilla plant gives the flavor?

_____

_____

2. What kind of plant is vanilla?

_____

_____

3. Why must farmers pollinate vanilla flowers by hand in many places?

_____

_____

4. How long does each vanilla flower stay open?

_____

_____

5. What happens to the pods after they are picked?

_____

_____

6. Why does real vanilla cost more than many other flavors?

_____

_____

Words to know

pod: a long case that holds seeds
orchid: a kind of flowering plant with unusual blooms
pollinated: given pollen so a flower can make seeds or fruit
wrinkled: covered with small folds or lines

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: _____

Vanilla Flowers and the Helping Human Hand

Square group

The distinctive flavor of vanilla comes from a long, slender pod that grows on a climbing vine, which is a kind of orchid. Before a pod can form, however, the flower must first be pollinated, which means that pollen has to be carried from one part of the blossom to another.

In the region where vanilla originally grew, a small native insect performed this task. In many other places, that insect does not live, so farmers have to pollinate every flower by hand.

Each vanilla flower stays open for only a single morning. A worker must locate it and use a tiny stick to move the pollen at precisely the right moment. If the worker misses that morning, no pod will develop, and a farmer may have to check hundreds of vines every day.

When the pods are picked, they are green and have almost no scent. They are warmed, left to sweat, and then dried in the sun over many weeks. Gradually they turn dark brown and wrinkled while their rich smell grows stronger.

The careful hand work and the long waiting explain why real vanilla costs more than many other flavors.

Questions

1. Which part of the vanilla plant provides the flavor?

_____

_____

2. What kind of plant is vanilla?

_____

_____

3. Why must farmers in many places pollinate vanilla flowers by hand?

_____

_____

4. How long does each vanilla flower remain open?

_____

_____

5. What happens to the pods after they are picked?

_____

_____

6. Why does real vanilla cost more than many other flavors?

_____

_____

Words to know

pod: a long case that holds seeds
orchid: a kind of flowering plant with unusual blooms
pollinated: given pollen so a flower can make seeds or fruit
wrinkled: covered with small folds or lines

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: Vanilla Flowers and the Helping Human Hand

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

Circle: Vanilla Flowers and the Helping Human Hand

Easier · 153 words · Flesch-Kincaid grade 2.7

1. The long, thin pod.
2. A vine that is a kind of orchid.
3. The small insect that does this job does not live there.
4. Just one morning.
5. They are warmed and dried in the sun for many weeks until they turn dark brown.
6. It needs hand work and long waiting.

Triangle: Vanilla Flowers and the Helping Human Hand

This passage · 177 words · Flesch-Kincaid grade 4.1

1. The long, thin pod.
2. A vine that is a kind of orchid.
3. The small insect that does this job does not live there.
4. Only a single morning.
5. They are warmed and dried in the sun for many weeks until they turn dark brown and wrinkled.
6. It needs careful hand work and long waiting.

Square: Vanilla Flowers and the Helping Human Hand

Harder · 193 words · Flesch-Kincaid grade 8

1. The long, slender pod.
2. A climbing vine that is a kind of orchid.
3. The small native insect that does this job does not live there.
4. Only a single morning.
5. They are warmed and dried in the sun over many weeks until they become dark brown and wrinkled.
6. It requires careful hand work and long waiting.