Name: _____ Date: _____

Why the Orchard Grafter Joins Two Trees

Circle group

Say you love one kind of apple. You plant its seeds. The new tree may give a different apple. Seeds do not always grow into a tree like the parent.

So an orchard worker uses a trick. It is called grafting. She joins a piece of one tree to the roots of another.

Here is how. In late winter, she cuts a young twig from the tree with the apples she likes. The twig is called the scion. Then she cuts the top off a young tree with strong roots. That part is the rootstock.

She cuts both so they match. She presses them together. She wraps the joint in tape. In time, the two parts grow as one.

The scion grows into the branches. It gives the same apples as its parent tree. The rootstock gives strong roots.

Questions

1. Why does planting an apple seed not always work?

_____

_____

2. What is the twig from the tree with good apples called?

_____

_____

3. What does the rootstock give the new tree?

_____

_____

4. What does the grafter use to hold the joint?

_____

_____

5. Why does the grafter cut the two parts to match?

_____

_____

6. What kind of apples will the grafted tree give?

_____

_____

Words to know

orchard: a place where fruit trees are grown
grafting: joining a piece of one plant to another so they grow together
scion: a young twig that is joined to another tree
rootstock: the roots and base that a scion is joined to

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: _____

Why the Orchard Grafter Joins Two Trees

Triangle group

Say you love one kind of apple. You plant its seeds and wait. The new tree may give you a different apple. Seeds do not always grow into a tree just like the parent.

So an orchard worker uses a trick called grafting. She joins a piece of one tree to the roots of another.

Here is how it works. In late winter, she cuts a young twig from the tree with the apples she likes. This twig is called the scion. Then she cuts the top off a young tree that has strong roots. That part is called the rootstock.

She cuts both so they match. She presses them together and wraps the joint in tape. Over time, the two parts grow into one.

The scion then grows into the branches. It gives the very same kind of apples as the tree it came from. The rootstock gives the new tree its strong roots.

Questions

1. Why does planting an apple seed not always work?

_____

_____

2. What is the twig from the tree with good apples called?

_____

_____

3. What does the rootstock give the new tree?

_____

_____

4. What does the grafter use to hold the joint together?

_____

_____

5. Why does the grafter cut the two parts so they match?

_____

_____

6. What kind of apples will the grafted tree give?

_____

_____

Words to know

orchard: a place where fruit trees are grown
grafting: joining a piece of one plant to another so they grow together
scion: a young twig that is joined to another tree
rootstock: the roots and base that a scion is joined to

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: _____

Why the Orchard Grafter Joins Two Trees

Square group

Suppose you are very fond of one particular kind of apple, so you plant its seeds and wait patiently. The tree that sprouts may produce an entirely different apple, because seeds do not always grow into a tree just like the parent.

For this reason, an orchard worker relies on a technique called grafting, in which she joins a piece of one tree to the roots of another.

Here is how the technique works. In late winter, she cuts a young twig from the tree that bears the apples she likes, and this twig is known as the scion. Next, she cuts the top off a young tree that has strong roots, and that lower part is called the rootstock.

She cuts both pieces so that they match, presses them firmly together, and wraps the joint in tape. As time passes, the two parts grow together into a single tree.

The scion eventually develops into the branches and produces exactly the same kind of apples as the tree it came from, while the rootstock supplies the new tree with strong roots.

Questions

1. Why does planting an apple seed not always work?

_____

_____

2. What is the twig from the tree with the good apples called?

_____

_____

3. What does the rootstock supply to the new tree?

_____

_____

4. What does the grafter use to hold the joint together?

_____

_____

5. Why does the grafter cut both pieces so that they match?

_____

_____

6. What kind of apples will the grafted tree produce?

_____

_____

Words to know

orchard: a place where fruit trees are grown
grafting: joining a piece of one plant to another so they grow together
scion: a young twig that is joined to another tree
rootstock: the roots and base that a scion is joined to

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: Why the Orchard Grafter Joins Two Trees

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

Circle: Why the Orchard Grafter Joins Two Trees

Easier · 139 words · Flesch-Kincaid grade 1.1

1. The new tree may give a different apple.
2. The scion.
3. Strong roots.
4. Tape.
5. So they press together and grow as one tree.
6. The same kind as the tree the scion came from.

Triangle: Why the Orchard Grafter Joins Two Trees

This passage · 155 words · Flesch-Kincaid grade 1.8

1. The new tree may give a different kind of apple.
2. The scion.
3. Strong roots.
4. Tape.
5. So they press together and can grow into one tree.
6. The same kind as the tree the scion came from.

Square: Why the Orchard Grafter Joins Two Trees

Harder · 181 words · Flesch-Kincaid grade 8

1. The new tree may produce a different kind of apple.
2. The scion.
3. Strong roots.
4. Tape.
5. So they press together firmly and can grow into a single tree.
6. The same kind as the tree the scion came from.