Science Fables

The Secret Beneath the Roots

Story Quiz

This quiz follows Zoe and Ethan in Grandma Rosa's garden as they discover how nitrogen-fixing bacteria help bean plants grow.

1. What did Zoe and Ethan notice about the two rows of bean plants?

A. Both rows looked exactly the same
B. One row was healthy, while the other looked pale and weak
C. Both rows had no flowers
D. One row received no sunlight

2. What were the small, round bumps on the bean roots called?

A. Seeds
B. Flowers
C. Nodules
D. Leaves

3. Which helpful bacteria lived inside the root nodules?

A. Rhizobium
B. Algae
C. Fungi
D. Yeast

4. What do Rhizobium bacteria do with nitrogen from the air?

A. They remove it from the soil
B. They change it into a form the plant can use
C. They turn it into sunlight
D. They store it inside flowers

5. What does the plant give the Rhizobium bacteria in return?

A. Sugar and a safe home
B. Extra sunlight and rain
C. Leaves and flowers
D. Water and soil

Answer Key

1. B — One row was healthy, while the other looked pale and weak

Zoe and Ethan noticed that one row of bean plants was healthy, while the other looked pale and weak.

2. C — Nodules

The small, round bumps on the bean roots are called nodules.

3. A — Rhizobium

Rhizobium bacteria lived inside the root nodules.

4. B — They change it into a form the plant can use

Rhizobium bacteria change nitrogen from the air into a form the plant can use.

5. A — Sugar and a safe home

In return, the plant gives the Rhizobium bacteria sugar and a safe home.