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Roots

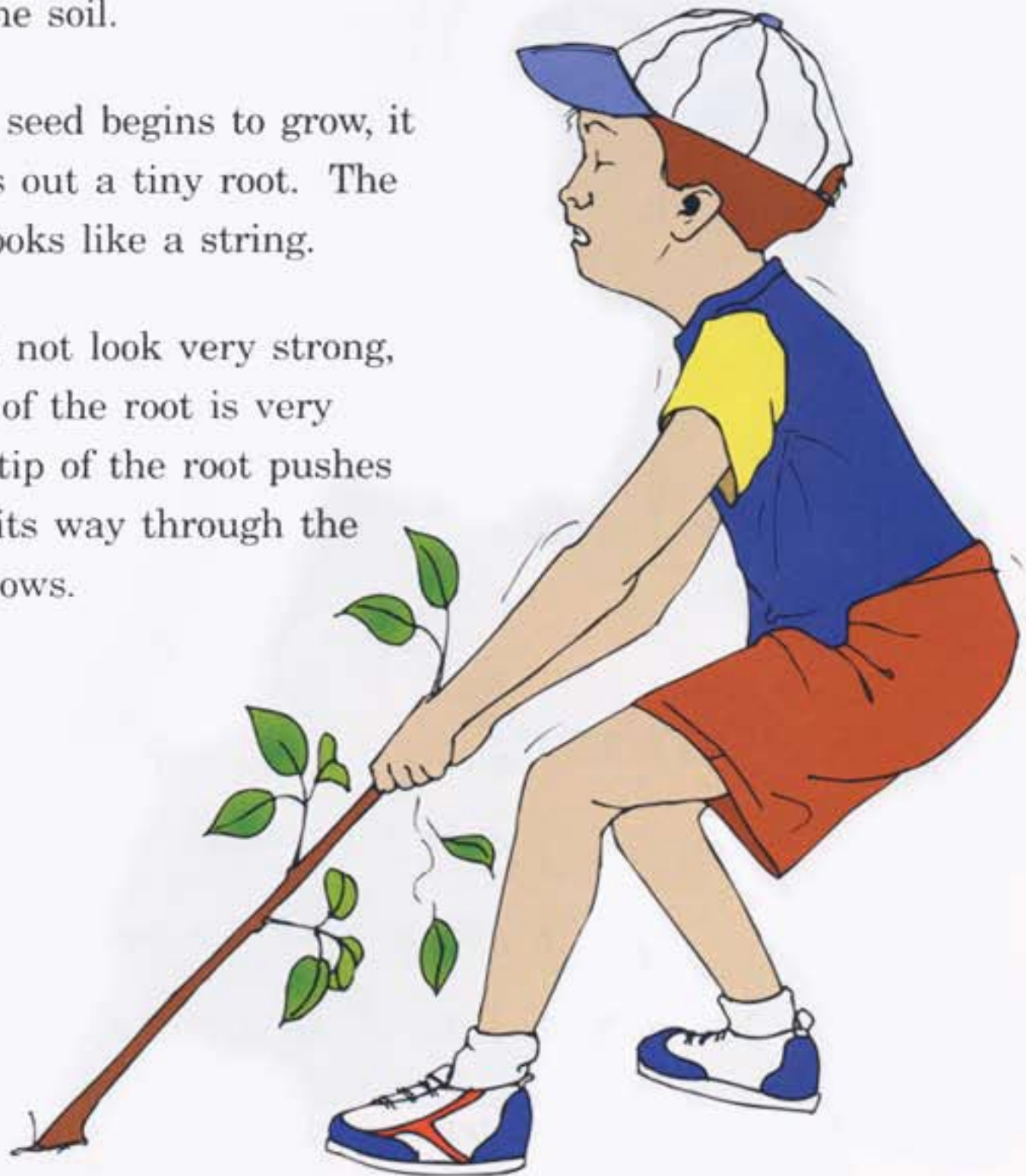
Have you ever tried to pull a weed out of the ground?

Why did you have to tug so hard?

The **roots** hold the plant very tightly in the soil.

When a seed begins to grow, it first pushes out a tiny root. The little root looks like a string.

It might not look very strong, but the tip of the root is very hard. The tip of the root pushes and twists its way through the soil as it grows.





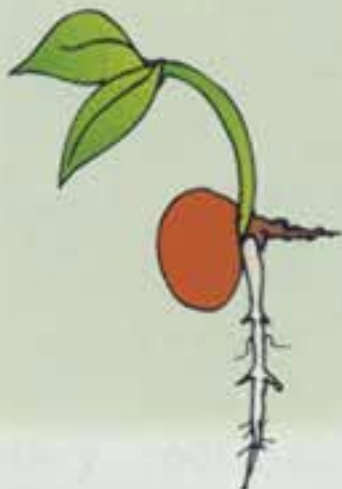
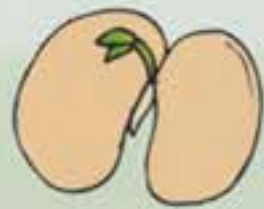
Something to try!

Q Watch a plant grow.

Can you find a baby plant inside a seed? What happens to the baby plant as it begins to grow? Try this and see!

What you need:

- several large bean seeds
- a shallow box of dirt
- water



What to do:

1. Plant the seeds in the box, but do not cover them with very much dirt.
2. Sprinkle the plants with water every day.
3. At the end of 4 days, very gently uncover one of the seeds.
Has the seed grown any?
4. Gently break the seed open.
A baby plant has begun to grow inside the seed.
5. Every 4 days, uncover another seed. Look closely at its roots.
Do you see other ways the seed has changed? The seed is no longer a seed. It has become a plant.

As the plant grows taller, the roots reach deeper into the soil. The roots must grow longer to hold the bigger plant in place.

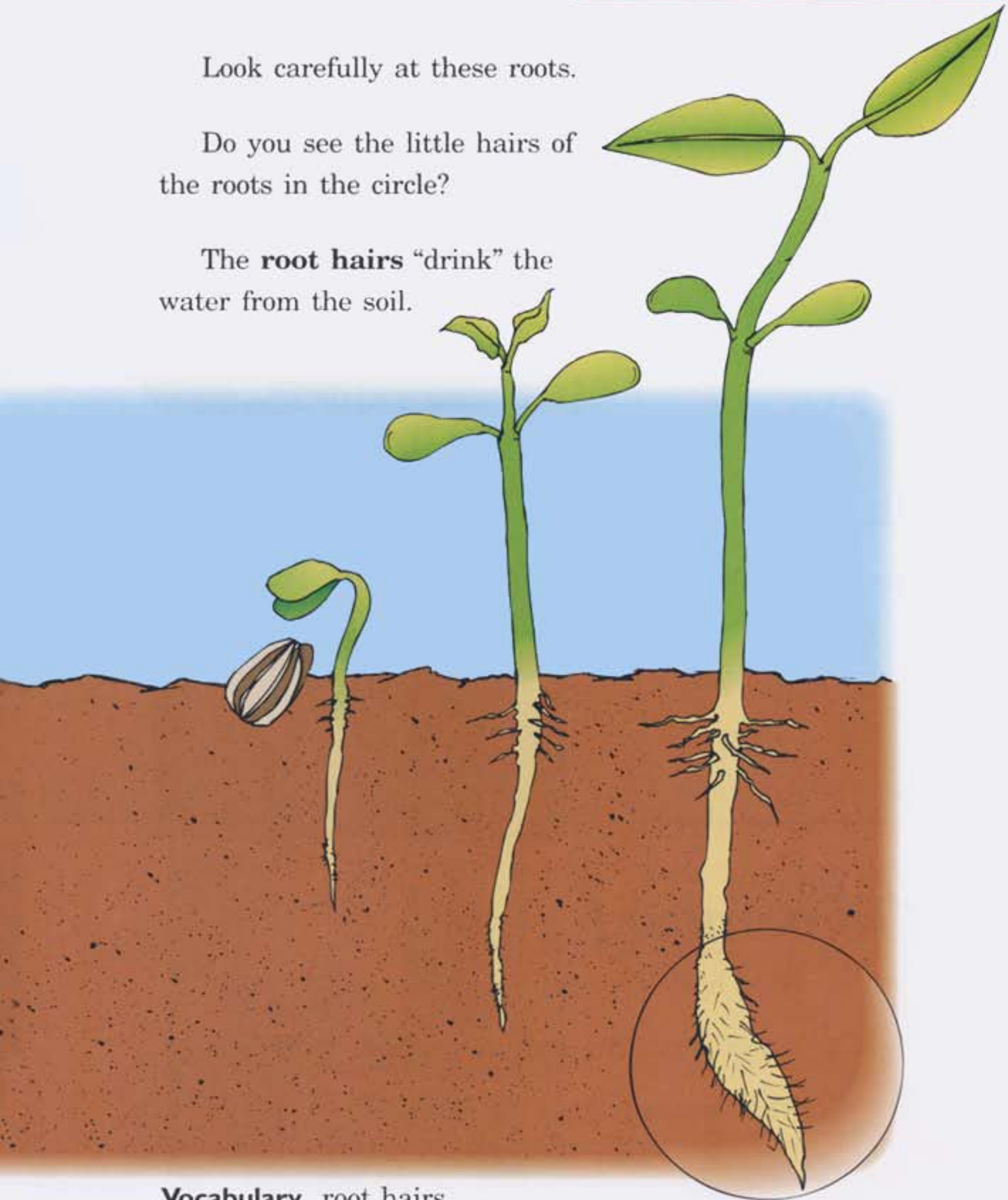
The bigger the plant is, the more water it needs. So the roots reach farther down for more water.



Look carefully at these roots.

Do you see the little hairs of the roots in the circle?

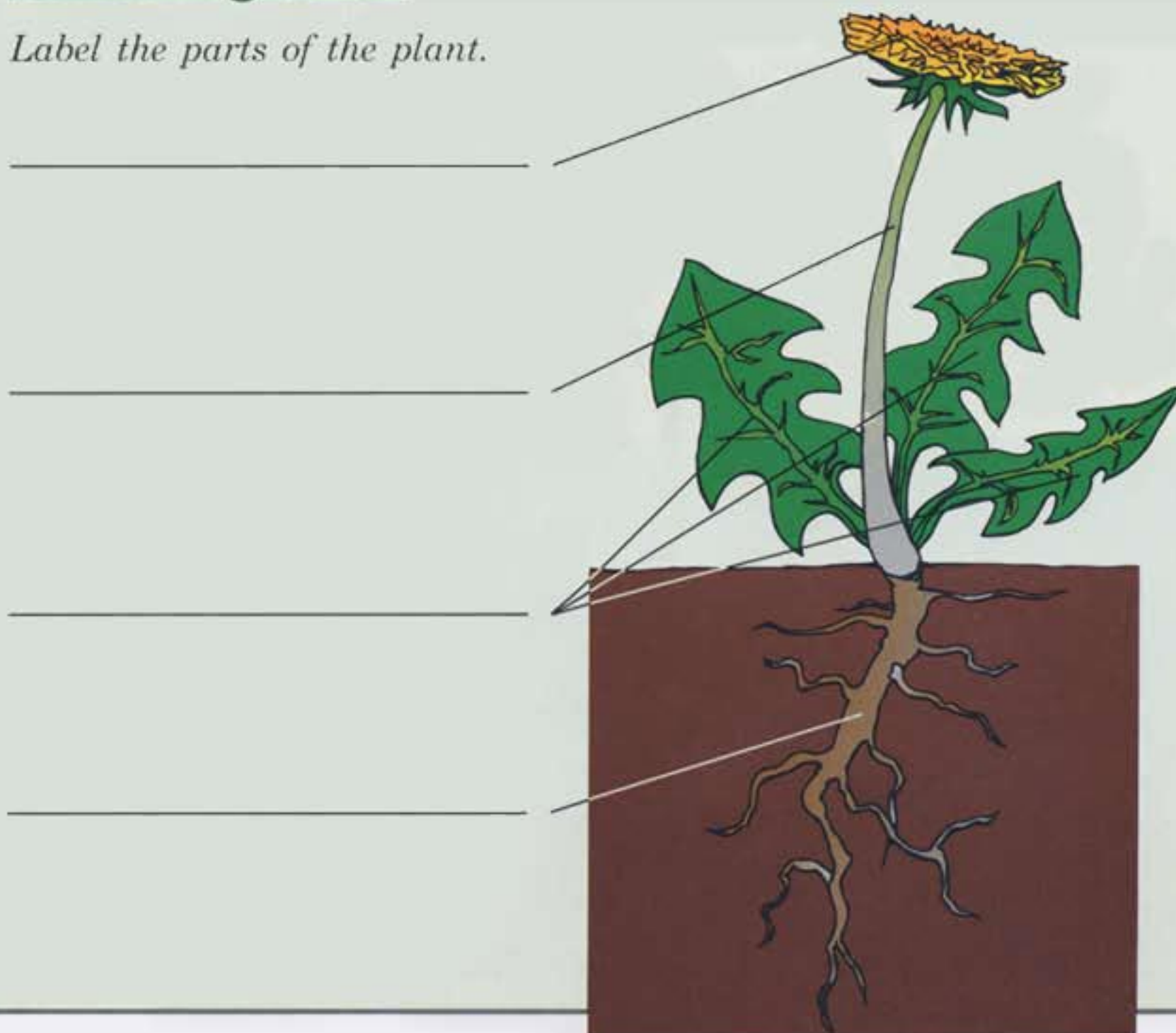
The **root hairs** “drink” the water from the soil.



Vocabulary root hairs

Something to do

Label the parts of the plant.



Do you remember?

1. What holds the plant very tightly in the soil?
2. Which part of the root “drinks” the water?
3. What begins to grow inside a seed?