



Are You Stronger Than a Dandelion's Roots?

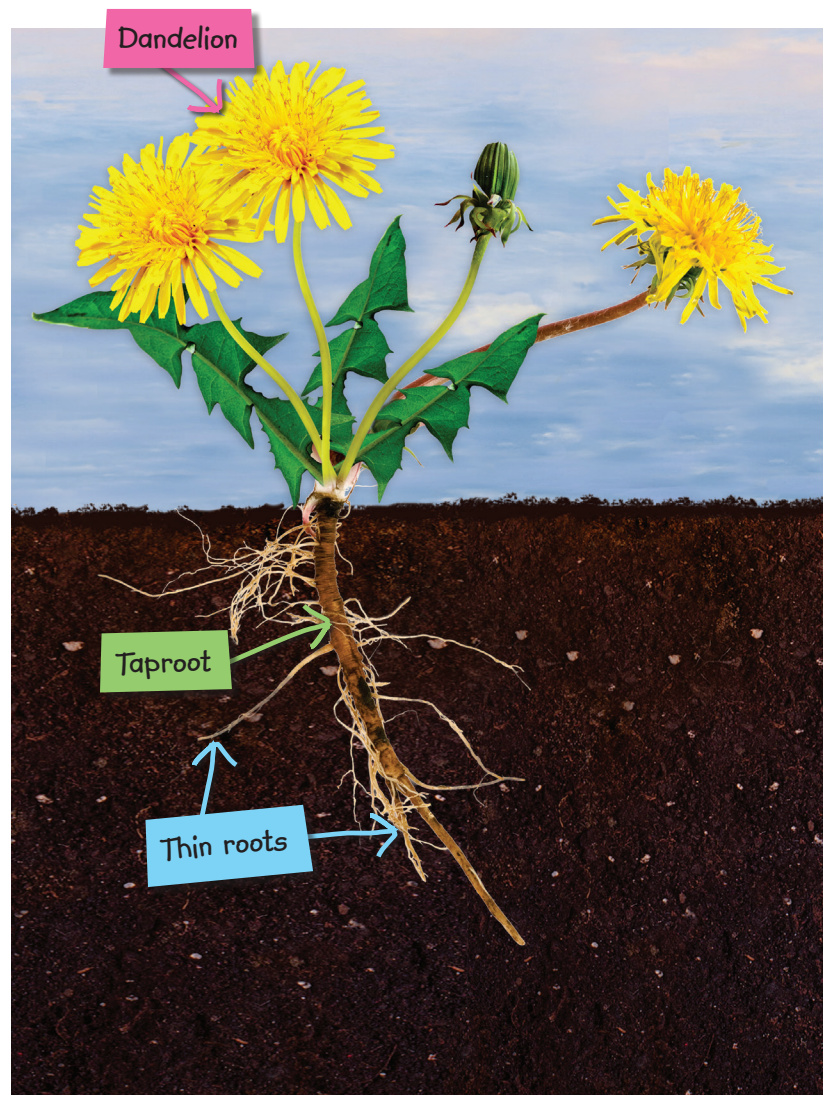
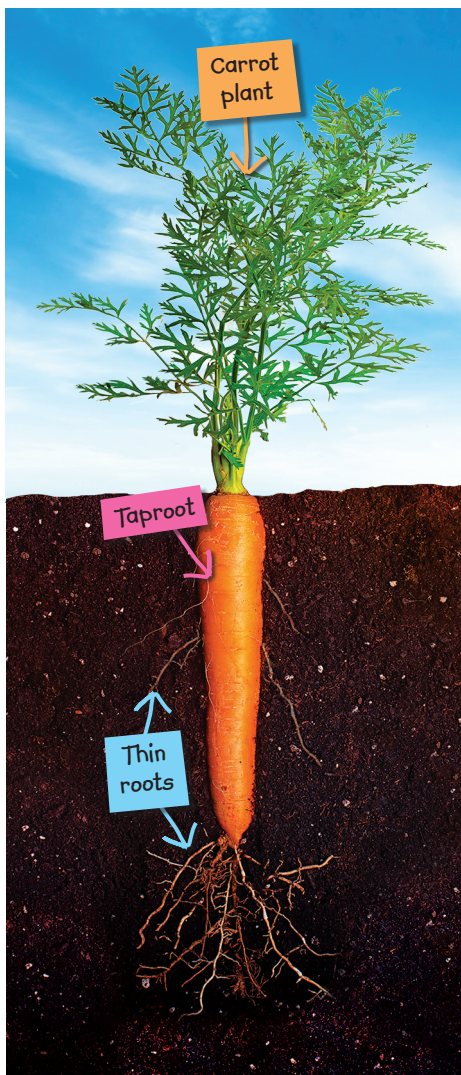
A plant's roots grow down into the soil.

They take in water and nutrients from the soil.

A plant's roots also hold it steady in the soil.

They stop it falling over when the wind blows or if its leaves or flowers become too heavy.

Some plants, such as dandelions and carrot plants, have one long main root called a taproot.



Thinner roots grow from the taproot.

How strong do you think a plant's roots can be?
Let's investigate!



Are you stronger than a dandelion's root?

Gather your equipment:



1. Find a large dandelion plant in your garden.
Ask an adult if you can pull up the plant.



2. Take hold of the plant's leaves, stems and
flowers and pull as hard as you can!

**Did you manage to pull the dandelion's long taproot
from the ground? Describe what happened.**

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3. Next try digging up the root with a small spade.

**Did you manage to dig up the whole taproot?
Describe what happened.**

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Why do you think a dandelion needs such a long root?

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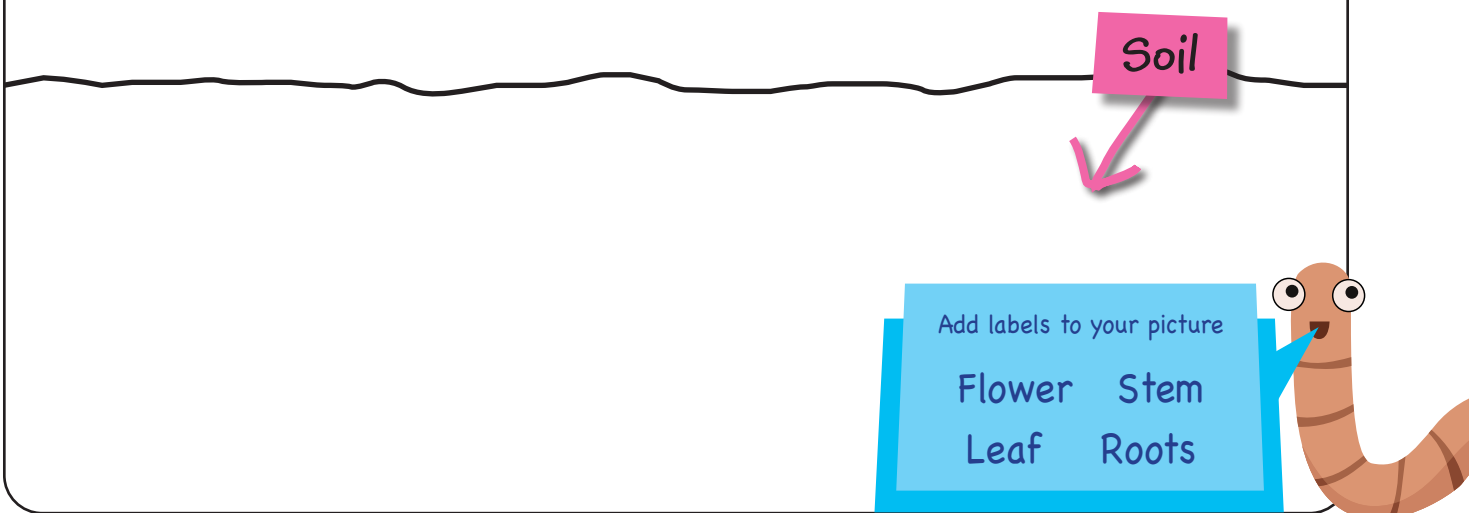
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Look at the root through a magnifying glass. Describe what you see.

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Draw a dandelion and its root.





Dandelion Seeds



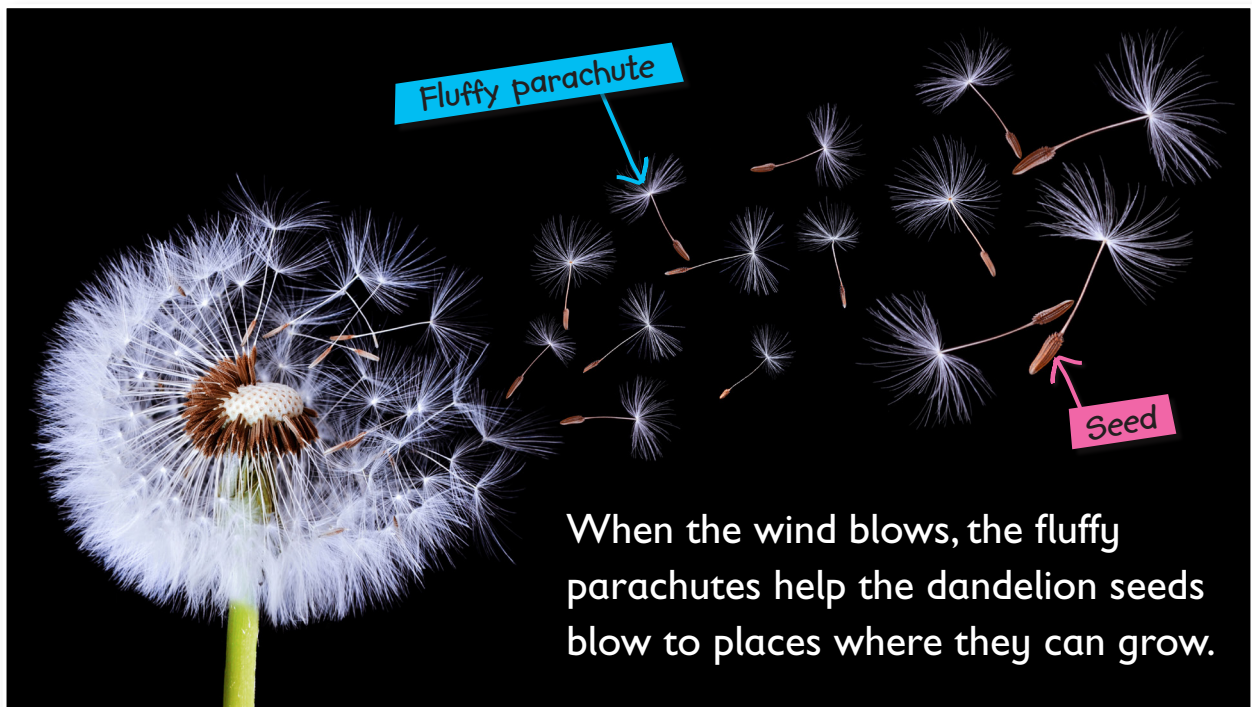
As winter turns to spring, yellow dandelion flowers appear. This is very helpful for bees and other insects. The flowers produce nectar and pollen at a time of year when there is not much food around for insects.



Inside the flower the seeds are forming. After about a week, the yellow petals start to shrivel.



Each tiny seed has a fluffy parachute attached to it. The seeds form a fluffy ball.

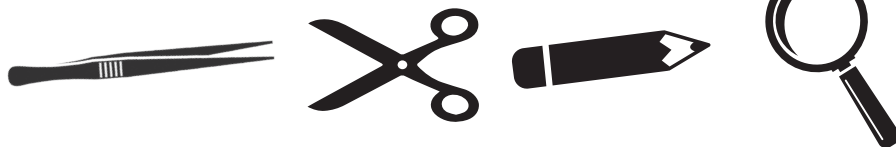


When the wind blows, the fluffy parachutes help the dandelion seeds blow to places where they can grow.



How Many Seeds Does a Dandelion Flower Produce?

Gather your equipment:



1. Find a fluffy dandelion seedhead and gently cut it from the plant.
Try not to shake or bang it because the seeds will start to fly away.

2. Carefully observe the seedhead. How many seeds do you estimate are in the fluffy ball? Record your estimated answer.

3. Now gently pull the seeds from the seedhead and count them.

You can use your fingers or tweezers.

How will you count the seeds? Can you think of a system for counting so that you don't lose count? Here is a place to record your workings.

4. How many seeds were in the seedhead? How close was your estimate?

Answers and Notes: Dandelions often grow in places where there is not much soil, such as in cracks in the pavement. These tough plants are adapted to these habitats because they have a long root that grows deep underground to find water and nutrients. Many gardeners say that dandelions are weeds. What does this mean? A weed is a tough plant that can grow quickly. Often weed plants don't need much water or many nutrients in order to survive. Gardeners may not like weeds because they take water and nutrients away from other plants. Each dandelion flower can produce hundreds of seeds that blow in the wind to new growing places. This means that dandelions can easily spread in a garden, park or playground.