



The plants are growing!

Use the Sun

time

25 minutes
(day 1),
30 minutes
(days 2 to -4) &
30 minutes
(day 5)

learning outcomes

- To:
- know the growth cycle of a plant
 - learn that a plant needs water and sunlight to live
 - discover that plants provide oxygen that people need to live

materials needed

- 24 jam jars or transparent plastic cups
- cotton wool
- cress seeds (about ten per child)
- jug of water
- aluminium foil
- colouring pencils
- bread
- butter or cream cheese

end product

- two jars of cress for each pair of children

Tip. Begin this lesson on the Monday so you will be finished on Friday.



How do plants grow? 10 min.

Sit in a circle with the children. Ask if anyone knows how plants grow. Discuss the answers. Show the photographs from the discussion sheet of cress growing. Discuss the photographs with the children. Explain that every plant begins as a tiny seed. If the seed lands in the earth in a place where it can live it puts out a root and the plant starts to grow. Ask the questions: What does a plant need to grow? and Can a plant live without water? Come to the conclusion that a plant needs at least water to stay alive.



The children investigate the difference between cress that grows in the dark and cress that grows in the light.



Cress 15 min.

Organise the children into pairs. Give each pair two jam jars or transparent plastic cups, some cotton wool and some cress seeds. Explain that each child is going to prepare one jar or cup. Ask them to half fill their jar or cup with cotton wool. Then they should put approximately ten seeds on top of the cotton wool. Go around the class with a jug of water and pour a little into each jar or cup. Make sure the cotton wool is wet without being drenched. One of the pair wraps foil around the jar or cup to prevent light reaching the seeds. Ask the children to make sure that the seeds have enough room to grow. The pairs write their names on their two pots and put them on the window sill.



What does the cress look like? 3 min. (day 2-5)

Starting the day after planting, the children keep a record of the progress of their cress seeds.

For four days in a row they complete Task 1 on the worksheet. Hand out the colouring pencils. On the worksheet they colour in the colour of the cress, how tall it is, and what the seeds look like. Encourage the children to give their cress a small amount of water every day, so that the cotton wool remains damp throughout the week.



Conclusion 10 min.

At the end of the week discuss the completed worksheets. What are the conclusions? The cress in the jars or cups with aluminium foil is tall and spindly because the cress is using all its energy to search for sunlight. The colour of this cress is yellow/white. The cress in the jars or cups with access to light has used its energy to make leaves. The leaves have a green colour.

Explain that plants need water, light, and substances in the air to make nutrients (food) for themselves. All the green parts of the plant (leaves, stalks and some flowers) contain what we might describe as little factories. These factories take the water and the substances in the air and turn them into nutrients. The cress can survive for a few days on the nutrients in the seed. But when these are all used up, if there is no water or light, the cress will die. In this experiment these plants didn't get any sunlight, so they were unable to make new nutrients. These plants will not live for very long. So light is very important to plants.



What does the cress taste like? 10 min.

Give each child a piece of bread with some butter or cream cheese and their own cress that they have grown. Question: 'Which cress tastes better: the cress that grew in the light or the cress that grew in the dark?'



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discussion sheet





The plants are growing!

What does the cress look like?



What do you need?

- two containers with cress
- water
- colouring pencils

What are you going to do?

- 1 Examine the two containers every day.
- 2 Carefully remove the aluminium foil.
- 3 Mark how tall your plant is on the ruler, and draw what it looks like.
- 4 Colour the box to match the colour of your plant.



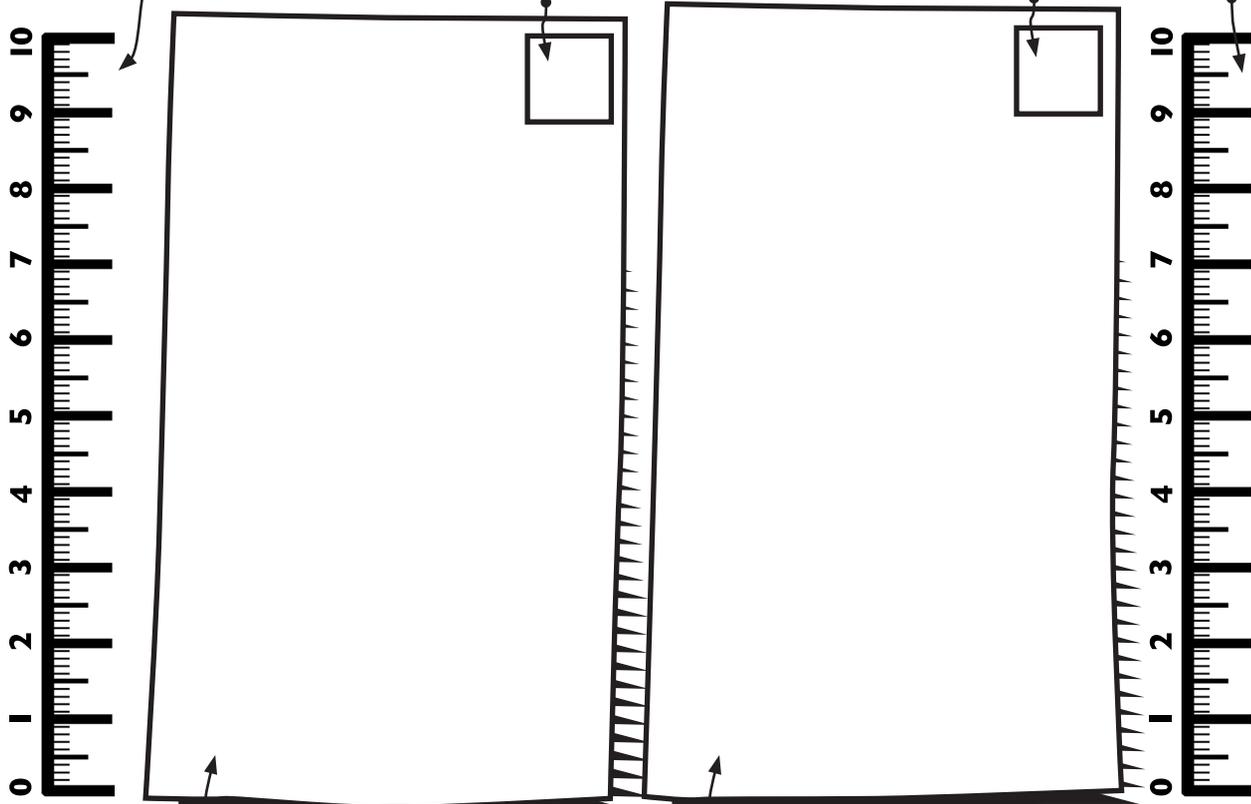
day 1

fill in **HERE**
how tall
your plant is

this is the
COLOUR of
my plant

this is the
COLOUR of
my plant

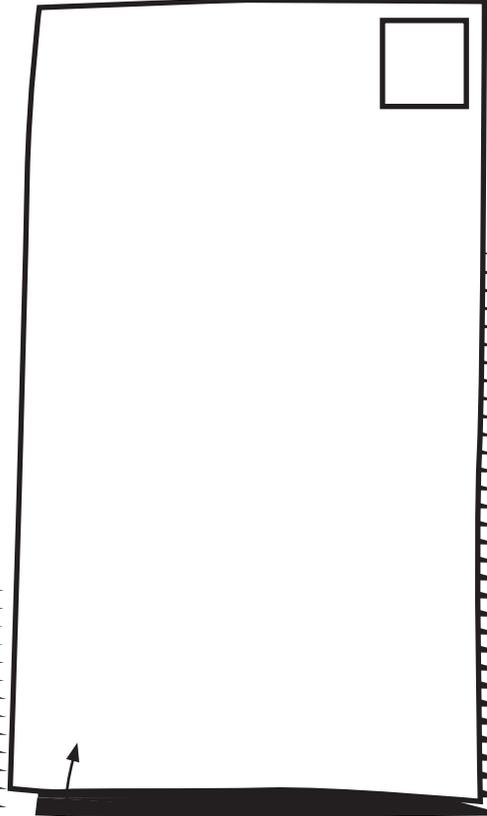
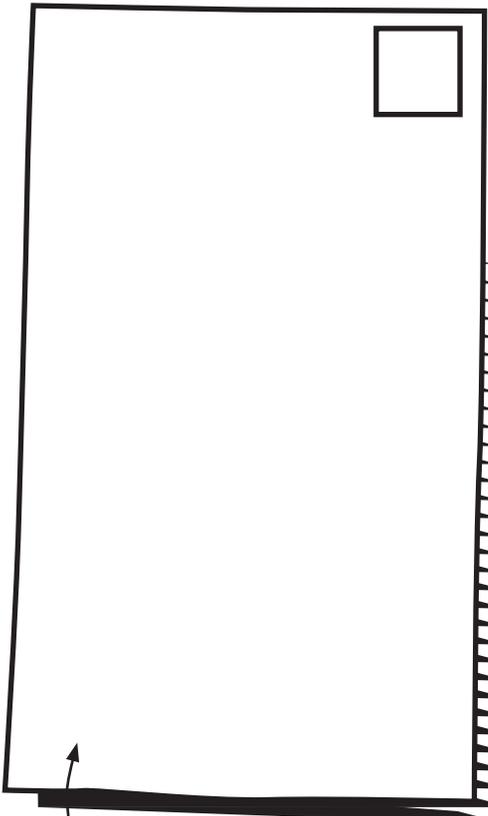
fill in **HERE**
how tall your
plant is



this is how my
plant that was
kept in the
DARK looks

this is how my
plant that was
kept in the
LIGHT looks

day 2



fill in **HERE**
how tall your
plant is

this is how my
plant that was
kept in the
DARK looks

this is how my
plant that was
kept in the
LIGHT looks

fill in **HERE**
how tall your
plant is

