



Science

Plants

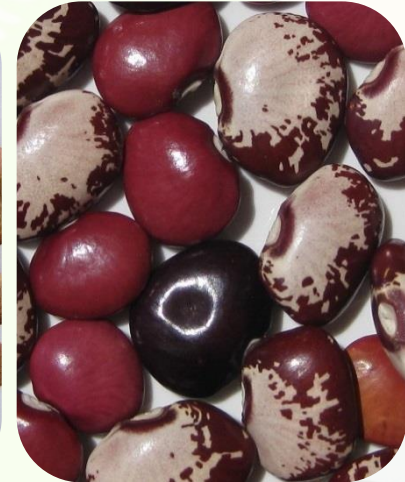
Seeds and Bulbs



Seeds and Bulbs



The first stage in the life cycle of most plants is a seed. Seeds come in all shapes and sizes. Every plant has a different seed.



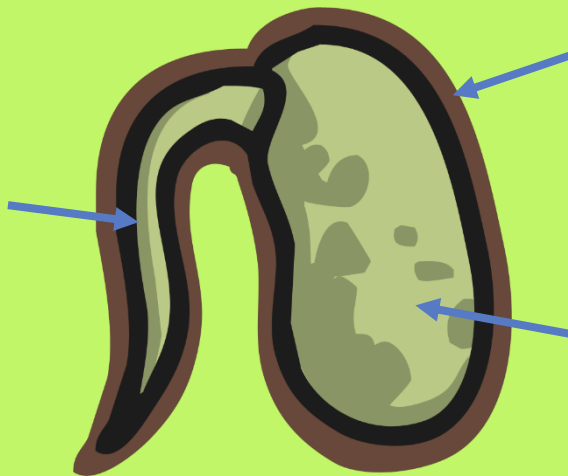
Seeds and Bulbs

Every single seed has the beginnings of a new plant inside it, along with a little store of food to help it grow.

When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is called **germination**.

Embryo:

The tiny root and shoot which will grow into the adult plant.



Seed Coat:

A tough outer covering.

Food Store:

A Store of food for the young plant to use until it has grown enough to make its own food.

Seeds and Bulbs: Germination



Click the button below to find out more about germination.



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Seeds and Bulbs

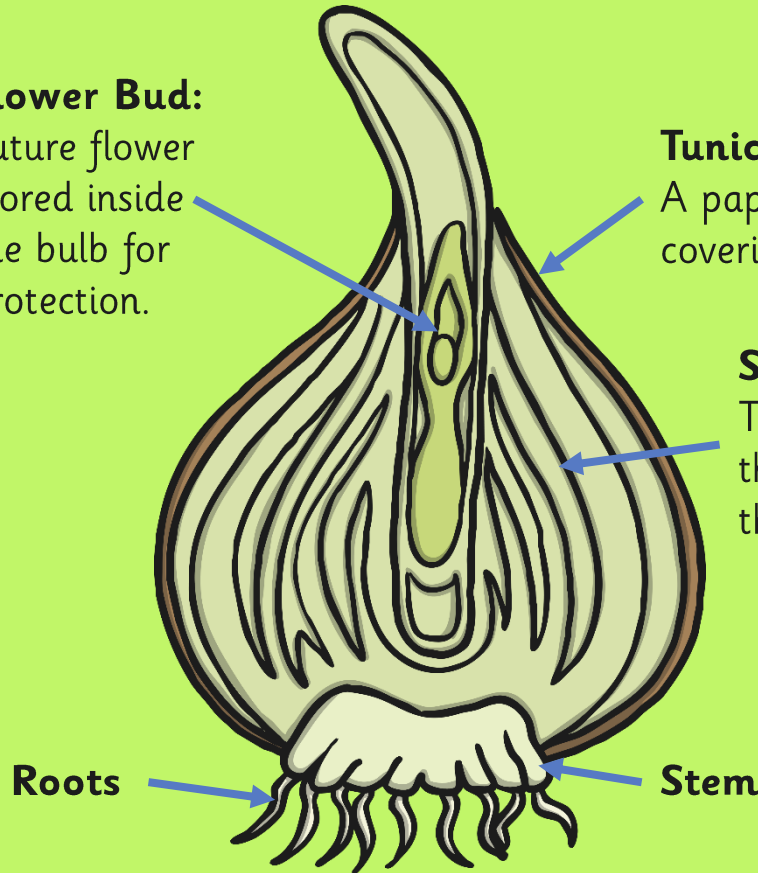
Some plants grow first from a seed, and then develop a bulb that helps them to grow back year after year.

A bulb lets the plant rest underground over the winter when it is too cold, then grow back later in the year when conditions are right.

Flower Bud:
Future flower stored inside the bulb for protection.

Tunic:
A papery outer covering.

Scales:
Thick leaves that store the food.



Seeds and Bulbs

Here are some common plants that grow from bulbs.

Daffodils, tulips, snowdrops, lilies and allium.



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Seeds and Bulbs

We are going to plant a seed and a bulb each, so we can **compare** how they grow.

Comparing means looking closely to see what is similar and what is different.



Paperwhite Narcissus



Dwarf Sunflower

What Do Plants Need to Grow?



Seeds and bulbs need to wait for conditions to be just right before seeds can germinate and bulbs can sprout new growth.

What do you think that our plants will need so they can sprout and grow well?



What Do Plants Need to Grow?



How can we find out if you are right?



Planting



As well as our seeds and bulbs, we are going to plant some extra seeds and set up a **comparative test**.

In our comparative test, we are going to plant the same seeds, and **compare** how they grow under different conditions.

This will help us to learn what plants need to grow well.



Planting

You will need:

- 1 test seed
- 1 dwarf sunflower seed
- 1 paperwhite narcissus bulb
- 3 plant pots
- Soil



Planting

1

Fill your pot half full of soil.



2

Plant the seed or bulb in the soil.



3

Cover the seeds and bulbs with more soil.



4

We put the seeds and bulbs in a warm and sunny spot.



Plant Growth Comparative Test



In your group, you are going to compare the growth of your test seeds.

One seed will be given water and sunlight.

One seed will be given water but **no sunlight**.

One seed will be given sunlight and **no water**.

One seed will be given **no sunlight** and **no water**.

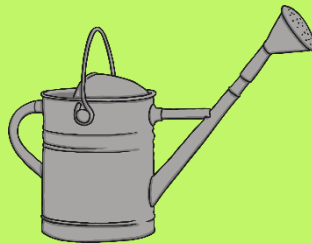
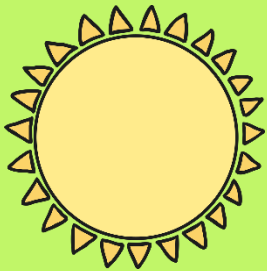
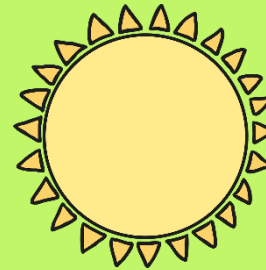
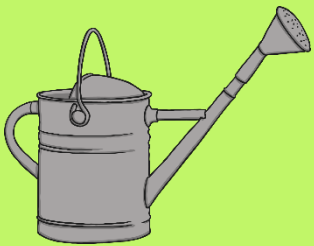
What do you think will happen to each of the seeds?



Plant Growth Comparative Test



What conditions does each plant need? Where should they go?

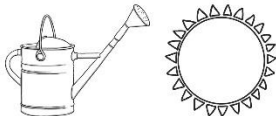
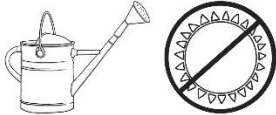

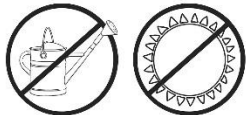


Plant Growth Predictions



Plant Growth Prediction

Look at the condition the seed is planted in. Describe how it will grow.

Growing Conditions How the seed will be planted.	Prediction How the plant will grow.
The seed will be given water and sunlight. 	
The seed will be given water and no sunlight. 	
The seed will be given sunlight and no water. 	
The seed will not be given water and sunlight. 	

Plant Growth Predictions



Which seed did we predict would grow the best?

What conditions should we give our sunflower and narcissus plants so that they grow well?



{ Daisy }

{ Seeds }