

Tuesday 21st April

Science: WALT: Investigate what plants need to survive

Success Criteria:

- observe and describe how seeds and bulbs grow into mature plants
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

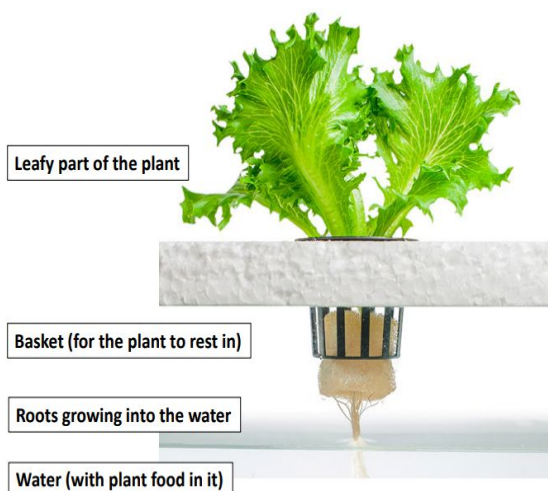
Watch the time lapse video of the sprouting bean below. What do you already know about plants and what they need to survive? Discuss ideas or think about your previous learning.



<https://www.youtube.com/watch?v=EKx4ZwoJqXY> – Time lapse of a sprouting bean seed (3 min 26 secs).

Experiment: Using seeds (ideally beans) see if you can begin to grow your own plant with an adult to help you (see instructions on next page). Don't worry if you do not have the resources to do the experiment will be doing it together when we return to school. Sometimes plants are grown in water instead of soil, this is called '**hydroponics**'. However they will only survive if the water has the correct **nutrients** (food) for the plant. Otherwise plants usually get their nutrients from the soil.

Hydroponically grown plants



Plants can be grown hydroponically (in water) in all sorts of ways. Sometimes they are even hung from the ceiling!



How to grow a bean in a bag

You will need:

a few seeds
paper towel [school ones are ideal]
stapler
plastic bag [the A4 sized kind which seals at the top works best]
ruler



Label bag with your name, date and seed name.

Fold a paper towel so that it just fits inside the bag.

Take a ruler and measure 7 cm from the top of the bag and staple a row of staples from one edge to the other through the plastic bag and paper towel. If you are using very small seeds then make the staples closer together. You will have a mini-shelf- 7 cm deep. This is where the seeds are going to sit.



Pour enough water into the bag so that it will soak up through the paper towel but leave a small reservoir of water at the bottom of the plastic bag (about 2-3 cm).

Sit the seeds on top of the staples. Seal up the bag so no air can escape or get in. Tape it to the window or peg to a washing line in the classroom.



Within a few days, depending on the time of the year, the seeds will begin to germinate. Children can clearly see the growth of roots and then the shoot. As soon as the young plants reach the top of the sealed bag they can be carefully removed and potted up.