

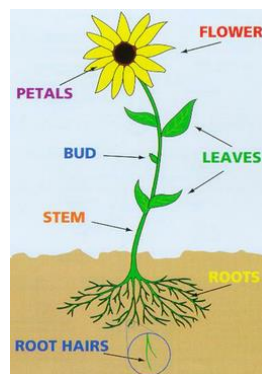
## Year 2 Science Project Plants

In our science project this week we want you to explore plants by doing some of your own research and carrying out investigations at home. Each day you will be given a different theme and ideas for investigations. You **do not** have to complete all of the activities. These are ideas of what you could do to find out more, explain what you know or to just have fun exploring science!

You can present your work however you want - the more creative the better! You can take photographs, videos, produce artwork, write poetry, draw graphs, make a book (to name just a few). We would love to see your hard work so please send us an email on the class accounts [2S@ashdeneschool.net](mailto:2S@ashdeneschool.net) or [2C@ashdeneschool.net](mailto:2C@ashdeneschool.net) or post on the school twitter account.

### Useful information

It is important to know the parts of a plant first. Below look carefully at the diagram of a plant that shows its parts. You might also want to visit some websites for further support.



### Websites to visit

- <https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-parts-of-a-plant/zvdkpg8>
- <https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z3wpsbk>
- <https://www.bbc.co.uk/programmes/articles/Mf5rhbTkHLZ3fbJzScyDvC/primary-science-plants>



## Monday - Spreading seeds:

- Go on a hunt in the kitchen and find a selection of seeds, this could be: peppers, grape seeds, orange pips, kidney beans, bean sprout, sunflower seeds, avocado, apple pips, pumpkin seeds, tomatoes, flower seeds etc.
- Look carefully, what can you see?
- Investigate the importance of the seeds and pips, what is their job and what might happen if we plant these things and watch them grow?  
What will they grow into?
- Look at the article on plant dispersal or the learning video clip:  
<https://www.youtube.com/watch?v=3CCOWHa-qfc>  
<http://www.kidsdiscover.com/parentresources/seed-dispersal/>  
<http://www.vtaide.com/png/seed-dispersion.htm>
- What are the different ways that a plant could get its seeds dispersed?
- Why is it important that seeds travel?  
Why is it better for them to be dispersed than to just drop on the ground in a heap all together?
- Look at the life cycle of the dandelion and discuss how its seeds are dispersed and what it grows to become.  
[https://www.stem.org.uk/system/files/elibrary-resources/legacy\\_files\\_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf](https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf)  
This learning clip will support further:  
<https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vdjxs>



## Activity ideas

Observe how seeds travel	
<p><b><u>Make a sycamore seed helicopter</u></b></p> <p><a href="http://www.planet-science.com/categories/under-11s/our-world/2011/09/make-a-spinning-seed!.aspx">http://www.planet-science.com/categories/under-11s/our-world/2011/09/make-a-spinning-seed!.aspx</a></p> <p>Predict how they might move before they explore the outside. Talk about what it is about the design that makes those seeds good at moving and wonder about how far a seed like that could travel.</p>	<p><b><u>Make a dandelion parachute</u></b></p> <p><a href="https://www.science-sparks.com/2349/">https://www.science-sparks.com/2349/</a></p> <p>Predict how they might move before they explore the outside. Talk about what it is about the design that makes those seeds good at moving and wonder about how far a seed like that could travel.</p>
<p><b><u>Seed Dispersal: Build an exploding seed pod</u></b></p> <p><a href="https://aroundthekampfire.com/2019/02/seed-dispersal-activity-build-exploding-seed-pod-for-kids.html">https://aroundthekampfire.com/2019/02/seed-dispersal-activity-build-exploding-seed-pod-for-kids.html</a></p> <p>Draw what you have observed and write your findings, it might be a good idea to measure the distance, so we know how far the seeds dispersed!</p>	<p><b><u>Use junk modelling to create a seed that can disperse:</u></b></p> <p>Using one of the five different ways. This could Blowing, Eating, Exploding, Floating, Falling, Sticking</p> <p>Write dispersal method on a large sheet of paper and think of different design features your model seed could have. For example, if you choose 'Blowing' then their seed will need flat or feathery parts and will need to be lightweight.</p> <p>Write any ideas and facts about your choice of seed dispersal on the large sheet of paper so you can display them with your junk model seed when you have finished it.</p>
<p><b><u>Make a clay burr (alternatively use playdough)</u></b></p> <p><a href="https://hamiltontrust-live-b211b12a2ca14cbb94d6-36f68d2.diviimedia.net/documents/KS1_Science_Yr_2_Summer_1_Ready_SteadyGrowSession_2_Resource.pdf">https://hamiltontrust-live-b211b12a2ca14cbb94d6-36f68d2.diviimedia.net/documents/KS1_Science_Yr_2_Summer_1_Ready_SteadyGrowSession_2_Resource.pdf</a></p> <p>Write a dispersal method of how burr hooks onto things to germinate. Label around your model.</p>	<p><b><u>Plant one of your own seeds that you have found and see what happens</u></b></p> <p>Write a prediction of what you think might happen and observe over time.</p> <p>You may want to use picture diagrams on a weekly basis to support your observations.</p>



## Tuesday - Spreading Seeds Part 2:

- Recap on the different ways seeds travel and disperse (Blowing, eating, exploding, floating falling and sticking).
- What is the importance of pollen being dispersed? Recap from the learning video ways in how these seeds can be dispersed, Explain, What and how insects might disperse pollen.  
<https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-what-is-pollination-and-how-does-it-work/zv4df4j>
- Investigate the life cycle in more detail:  
Look at the life cycle of the dandelion and discuss how its seeds are dispersed and what it grows to become.  
[https://www.stem.org.uk/system/files/elibrary-resources/legacy\\_files\\_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf](https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf)  
This learning clip will support further:  
<https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vdjxs>
- Have a think about some plants or trees that you now know of and how they disperse and what they eventually become.



## Activity ideas

Investigate ways of dispersing	
<p><b><u>Create own plant cycle</u></b></p> <p>Use resources around the house to create your own version of a plant cycle. This can be your own choice of seed.</p>	<p><b><u>Seed dispersal and pollinators</u></b></p> <p><a href="http://www.thefirstgraderoundup.com/2018/10/stem-challenge-pollinators.html">http://www.thefirstgraderoundup.com/2018/10/stem-challenge-pollinators.html</a></p> <p>Test your knowledge you could write up what is happening during pollination.</p>
<p><b><u>Dissecting daffodils to explore pollination</u></b></p> <p><a href="http://sloely.com/dissecting-daffodils-pollination/">http://sloely.com/dissecting-daffodils-pollination/</a></p> <p>Explore the flower and label what you can see. Follow the guidelines from the website it will be fascinating to explore the daffodil in more detail.</p>	<p><b><u>Seed Hunt</u></b></p> <p>Go outside and observe any plant dispersing. Use the plant cycle to support your learning. Challenge: Draw your own plant cycle based on your own observations.</p> <p><a href="https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf">https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/30246-Discoverers-Plant-Life-Cycle-Reference.pdf</a></p> <p>Write any ideas and facts about your choice of seed dispersal on the large sheet of paper so you can display them with your junk model seed when you have finished it.</p>

- Continue to build up your confidence on life cycles of plants by playing these games below:  
[http://resources.hwb.wales.gov.uk/VTC/plant\\_life\\_cycles/eng/Introduction/default.htm](http://resources.hwb.wales.gov.uk/VTC/plant_life_cycles/eng/Introduction/default.htm)  
[http://resources.hwb.wales.gov.uk/VTC/plant\\_repro/eng/Introduction/default.htm](http://resources.hwb.wales.gov.uk/VTC/plant_repro/eng/Introduction/default.htm)  
<https://www.sciencekids.co.nz/gamesactivities/plantsgrow.html>  
<https://www.sciencekids.co.nz/gamesactivities/lifecycles.html>  
<https://www.turtlediary.com/game/stages-of-plant-life-cycle.html>



# Ashdene Primary School

## Wednesday - Hydroponics:

- What do plants need to grow?  
<https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/zxxsyrd>
- Walk around the garden, do the plants look like they are fully grown, or do they need a little bit more time? Why?
- Many plants grow out of **seeds** and **bulbs**. What happens next?  
Refresh memory on the lifecycle of a plant:  
<https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vdjxs>
- Discuss what a bulb will need to start growing?  
How could we care for this bulb?
- Do we always need soil?
- Research 'hydroponics,' which is 'growing plants in water'  
<http://www.hydroponics-simplified.com/what-is-hydroponics.html>  
<https://www.youtube.com/watch?v=eCSlrlk0GTs> (stop at 2:39)





# Ashdene Primary School

## Activity ideas

Investigate a plants survival by setting up a Hydroponics Farm:	
<p><b><u>Dissect a flower</u></b></p> <p>Investigate the flowers parts and learn about their structure.  <a href="https://www.science-sparks.com/dissecting-flowers-and-more-plant-experiments/">https://www.science-sparks.com/dissecting-flowers-and-more-plant-experiments/</a></p> <p>Label these parts and share knowledge.</p>	<p><b><u>How do plants breathe</u></b></p> <p>Learn what trees and plants need with this easy outdoor experiment.            Pick a leaf, grab a bowl with water inside and follow this link for further help:  <a href="https://www.kcedventures.com/blog/how-do-leaves-breathe-a-simple-science-experiment-for-kids">https://www.kcedventures.com/blog/how-do-leaves-breathe-a-simple-science-experiment-for-kids</a></p> <p>Write what you predict will happen.            Write what you have found out?</p>
<p><b><u>Sprouting sweet potatoes</u></b></p> <p>Continue to investigate hydroponics and the process of growth and survival:  <a href="https://www.pre-kpages.com/science-for-kids-observing-plant-growth-in-sweet-potatoes/">https://www.pre-kpages.com/science-for-kids-observing-plant-growth-in-sweet-potatoes/</a></p> <p>Predict what they think will happen to the bean.            You could create a 'My sweet potato Diary' and fill in the first week.</p>	<p><b><u>Celery Osmosis</u></b></p> <p>Identify how water travels through a plant. This will help you recognise how much a plant needs water to survive. If plants did not have water the cells loose their shape and become wilted and droopy.  <a href="https://littlebinsforlittlehands.com/celery-osmosis-science-experiment/">https://littlebinsforlittlehands.com/celery-osmosis-science-experiment/</a></p> <p>Make a prediction of what you might see happen.            Write your findings.</p>
<p><b><u>Bean bag</u></b></p> <p>Investigate hydroponics by placing beans in a bag and observing over time:</p> <p>Predict what will happen to the bean. Create a 'My Bean in a Bag Diary' and fill in the first week.            You could also place one bagged bean in a cupboard, and predict what might happen in the dark.</p> <p><a href="https://www.sciencekiddo.com/bean-seed-in-a-bag/">https://www.sciencekiddo.com/bean-seed-in-a-bag/</a></p>	<p><b><u>Plant bulbs</u></b></p> <p>Plant your own bulbs in the garden and watch them grow over time.            Compare the differences between plants in soil and plants that are not in soil.</p> <p>You could write a set of instructions on how to care for your plant.</p>



## Thursday – Plants we eat

- What do plants need to stay healthy?
- Do food crops need the same to stay healthy?
- Explore the Kitchen and find any fruit or vegetables that you think grow in the ground and any fruit and vegetables that you think grow on trees.  
Categorise these.
- Are there any differences to how those in the ground need to be cared for compared to those on trees?
- Are there any similarities or difference to plants and those plants that we eat?

## Activity ideas

Investigate the plants we eat	
<p><b><u>Cress head:</u></b></p> <p>Make a cress head using the instructions linked. Why don't you experiment and see if there is a variation between, light and dark, cool or dry. Observe your cress heads, make predictions and draw daily changes, because they sure do grow fast!</p> <p><a href="http://www.planet-science.com/categories/under-11s/our-world/2011/07/grow-a-cress-head!.aspx">http://www.planet-science.com/categories/under-11s/our-world/2011/07/grow-a-cress-head!.aspx</a></p>	<p><b><u>Blinded tasting test:</u></b></p> <p>Compare different fruit and vegetables and predict what it is, how it has grown and what it might need to taste delicious. What might have happened to the fruit or vegetable if it tastes rotten? Has the fruit or vegetable not been given the best care?</p>
<p><b><u>Growing lettuce:</u></b></p> <p>Regrow your lettuce at home! This will be a fascinating experiment and it will support your new understanding of hydroponics. Why don't you compare a lettuce that is made in soil and your own lettuce that you have grown by just using water!</p> <p><a href="https://littlebinsforlittlehands.com/growing-lettuce-from-stumps-kitchen-science/">https://littlebinsforlittlehands.com/growing-lettuce-from-stumps-kitchen-science/</a></p>	<p><b><u>Planting fruit and vegetables:</u></b></p> <p>If you are feeling like a gardener! Why don't you plant your own fruit and vegetables and observe these overtime!</p>





# Ashdene Primary School

## Friday – How different plants grow

- From all of your fantastic knowledge you should now hold enough scientific knowledge to explain how plants grow and why!
- Go for a walk, observe, and describe the growth of different plants.
- Take photos of these plants that you have observed and make a pictogram to show the growth of these plants,

Here is a learning clip to remind you of a pictogram:

<https://www.bbc.co.uk/bitesize/clips/zg4d2hv>

## Activity ideas

Observe similarities and differences	
<b><u>Sunflower competition</u></b>  Grow your own sunflower and measure it over time! How far can you get it to grow! Try and think about what the sunflower is receiving to help it grow. Observe this over time and make notes and pictures of the growth.	<b><u>Measuring and comparing plants</u></b>  Explore the outdoors or your own back garden and measure and compare different plants. Based on your knowledge, why would some grow more than others? What are they receiving that one might not be?
<b><u>Estimating growth of trees</u></b>  Explore the outdoors and begin to estimate how tall you think some trees are. Make predictions to why you think some are taller than others. When you get home research some interesting facts about trees and see if your predictions are correct.	<b><u>Shaded VS Sunlight</u></b>  Grow two of your own plants and observe its growth over time does sunlight VS shaded have an effect.  Make predictions and observations overtime.