L Asghar

Subject –Science Summer 2 Year 3 Plants continued & Animals including Humans

**Key vocabulary Plants:** Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal), roots, stem/trunk, leaves, flowers
**Key vocabulary Animals including Humans:** Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water

| National Curriculum | Week | NC - Coverage | Disciplinary Knowledge | Substantive Knowledge | Activity Outline |
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| **The national curriculum for Science aims to ensure that all pupils:**<br><br>Working Scientifically Lower KS2<br>pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:<br>§ asking relevant questions and using different types of scientific enquiries to answer them<br>§ setting up simple practical enquiries, comparative and fair tests § making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers<br>§ gathering, recording, classifying, and presenting data in a variety of ways to help in answering questions<br>§ recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables | 1 | Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | I can use secondary sources.<br><br>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results. | I know that some plants produce flowers which enable the plant to reproduce.<br>I know that pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination).<br>I know that this forms seeds, sometimes contained in berries or fruits which are then dispersed in different ways. | KWL grid: Ask children to think about what they already know about plants and give some key words to prompt. BBI – Explain that children will be working in groups to research different parts of the life cycle of a flowering plant i.e., pollination, seed formation, seed dispersal and germination. CT to ensure children understand key knowledge prior to their research. Children to present their ideas in presentations/posters with diagrams collectively identifying the key stages in the lifecycle of a flowering plant. |
| | 2 | Explore the part that flowers play in the life cycle of flowering plants, including pollination. | I can draw and label a diagram of a flowering plant to show its parts, their role and the method of pollination and seed dispersal.<br><br>I can observe flowers carefully to identify the pollen. | I know that some plants produce flowers which enable the plant to reproduce. I know that pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). | CT to take children outdoors to make further observations of plants in the school grounds focusing on the flowers. Provide children with flowers to dissect – children to identify parts of the flower associated with pollination and compare them to labelled images. Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). |
| | 3 | Explore the part that flowers play in the life cycle of flowering plants, including pollination and seed formation and seed dispersal | I can research different types of pollination using secondary resources. | I know that some plants produce flowers which enable the plant to reproduce. I know that pollen, which is produced by the male part of the | CT to recap key stages in the lifecyle of a flowering plant i.e. pollination, seed formation and seed dispersal. Discuss different types of pollination that can occur including both insect and wind. Children to reasearch different types of pollinators before working in groups to role play the process from the perspective of different pollinators including bees, butterflies, moths and wind..Ensure |

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| § reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions § using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions § identifying differences, similarities or changes related to simple scientific ideas and processes § using straightforward scientific evidence to answer questions or to support their findings<br><br>**Subject Content Plants**<br><br>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.<br><br>**Subject Content Animals including Humans**<br><br>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food – they get nutrition from what they eat.<br><br>**School Context** | | | | flower, is transferred to the female part of other flowers (pollination). | children use key scientific vocabulary accurately i.e. flower, pollen, stamen, Capture evidence orally/photos with post-stiks of childrens language in books. Ensure children know that there a range of pollinators not just bees. |
| | 4 | Explore the part that flowers play in the life cycle of flowering plants, including pollination and seed formation and seed dispersal | I can classify seeds in a range of ways, including by how they are dispersed. | I know that the seed formed because of pollination is sometimes contained in berries or fruits which are then dispersed in different ways. | Ct to discuss different ways in which seeds are dispersed namely wind dispersal, animal dispersal and water dispersal. Show children a selection of seeds: ask children to sort pictures of different types of seeds and explain why they are suited to certain types of seed dispersal. Children should know methods of seed dispersal and identify that seeds are dispersed in different ways and can give reasons why seed dispersal is important. |
| | 5 | Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food – they get nutrition from what they eat. | I can classify food in a range of ways.<br>I can use secondary sources to find out the types of food that contain the different nutrients. | I know that food contains a range of different nutrients – carbohydrates (including sugars), protein, vitamins, minerals, fats, sugars, water – and fibre that are needed by the body to stay healthy. | Ct to encourage links between the food made by the leaves as nutrients and knowledge of humans requiring the right amount of nutrition. Ensure children understand that animals, unlike plants which can make their own food, need to eat in order to get the nutrients they need. CT to explain that food contains a range of different nutrients – carbohydrates (including sugars), protein, vitamins, minerals, fats, sugars, water – and fibre that are needed by the body to stay healthy. A piece of food will often provide a range of nutrients. Give children keywords - carbohydrates, proteins, fats, fibre, minerals, and vitamins - to research. After their research, ask children to complete the appropriate nutrient in the first column of the table. |
| | 6 | Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food – they get nutrition from what they eat. | I can use food labels to answer enquiry questions e.g. foods with high amounts of sugar have high amounts of fats. | I know that a piece of food will often provide a range of nutrients.<br><br>I know that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients. | Show children three images of food and ask children to think about which one they thought was the odd one out and why. Children should be using key vocabulary including nutrients, carbohydrates, proteins, fats etc. Give children food packaging and ask children to sort it according to how much fat or sugar they contain. Show children the food labels ensure their attention is on the column that displays content per 100g so that they can compare food items. Ask children to investigate if foods with high sugars always have high amounts of sugar. Children to know that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients. |

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| Children to observe flowering plants and the conditions they are growing in around the school grounds.<br><br>D&T -links to food. Refer to school dinner menu; what is the example from each food group on each day? | | | | | |

Common Misconceptions

**Some children may think**: • plants eat food • food comes from the soil via the roots • flowers are merely decorative rather than a vital part of the life cycle in reproduction • plants only need sunlight to keep them warm • roots suck in water which is then sucked up the stem.

**Some children may think**: • certain whole food groups like fats are 'bad' for you • certain specific foods, like cheese are also 'bad' for you • diet and fruit drinks are 'good' for you