



PKF

BEE CURRICULUM

Progression Grids for Parkland Infant and Junior School

INTENT

***'If the bee disappeared off the surface of the globe, then man would only have four years of life left.'* Albert Einstein**

At the Parkland Federation, we believe that outdoor learning has a plethora of benefits for children. Research has suggested that outdoor learning boosts confidence, social skills, communication, motivation and physical skills as well as improved knowledge and understanding. It has also been found to boost children's self-esteem, self-confidence, ability to work cooperatively and help them develop a positive attitude to learning.

On our school grounds, we have a secluded area where we keep our Parkland Beehive. We utilise this to support children's love of nature and the great outdoors. In order to be able to do this, we have worked in partnership with the British Beekeepers Association (BBKA) and currently have four trained staff members. Our Bee Curriculum goes hand in hand with our work as an Eco School as well as our commitment to wellbeing where we encourage our school community to 'connect', one of the recognised five ways to wellbeing



Aim high, work hard, dream BIG!

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IMPLEMENTATION

Our Bee Curriculum is delivered in all year groups from Year R to Year 6 and sits alongside our learning in science as well as our work around preserving the environment.

We use recorded footage from our hive to enhance learning and, with parental consent, children are able to visit the hive and observe our trained beekeepers in action. There are also opportunities to handle the beeswax and taste the honey and honeycomb. Cross curricular links are made with other subjects such as art and geography to enhance learning further.



Key Stage	Year Group	National Curriculum Link	Bee Knowledge	Skills	Activity	Resources	Key Vocabulary to learn
EYFS	R	Explore the natural world around them, making observations and drawing pictures of animals and plants	<p>To know that a bee is an insect</p> <p>To know that a bee makes honey</p>	<p>Observation</p> <p>Recording</p>	<p>Looking at pictures of bees, how are they the same/ different</p> <p>https://www.nurseryworld.co.uk/features/article/eyfs-activities-we-ve-explored-bees</p> <p>Tasting honey/ Making honey sandwiches</p> <p>Watch the Parkland Hive video</p> <p>Learn the Honey Song with Winnie the Pooh</p> <p>https://www.youtube.com/watch?v=-SwWL5xCzhM</p>	<p>https://www.amazon.co.uk/Bee-Book-Charlotte-Milner/dp/0241305187</p> <p>Winnie-the-Pooh Helps the Bees! published by Farshore</p> <p>Bees: A Lift the flap eco-book (Ladybird Eco-Books)</p> <p>The Bee Book by Charlotte Milner</p> <p>Are you a Bee? by Judy Allen</p> <p>Bee: A Peek through Picture book by Britta Teckenstrup</p> <p>The Honeybee by Kirsten Hall</p>	<p>Bee</p> <p>Insect</p> <p>Honey</p>

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1	1	Identify and name a variety of common animals that are carnivores, herbivores and omnivores	<p>To know what a bee eats</p> <p>To know the main body parts - compared to human body parts</p> <p>To know what a bee does when the weather is warm</p> <p>To know what a bee does when the weather's cold</p> <p>To know that bees live all over the world except Antarctica</p>	<p>Using their observations and ideas to suggest answers to questions</p> <p>Finding areas of the world on a map, including Antarctica</p> <p>Weighing and measuring/Food Technology</p>	<p>Is it a bee?</p> <p>Making model bees to label using playdough</p> <p>How does a bee see? Tuff spot - children experience how to see like a bee using bug goggles</p> <p>Where do bees live? (Map work link to geography)</p> <p>Make bee cupcakes Bee cupcake recipe</p>	<p>Busy Bee activities</p> <p>Parkland Hive video</p>	<p>Bee</p> <p>Honey</p> <p>Antarctica</p> <p>Weather</p> <p>Wing</p> <p>Leg</p> <p>Head</p> <p>Body</p>

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1	2	<p>Identify that most living things live in habitats to which they are suited</p> <p>Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p>	<p>To know the habitat of a bee</p> <p>To know how bees communicate</p> <p>To know that bees make beeswax as well as honey</p> <p>To know a bee collects pollen and nectar and uses this to feed baby bees as well as make honey</p>	<p>Identifying and classifying</p> <p>Using their observations and ideas to suggest answers to questions</p>	<p>Visits to the hive and wildlife garden to see where our bees live.</p> <p>Where do bees live? Link to geography</p> <p>Create a waggle dance</p> <p>Look at the inside of a beehive. How does this habitat suit the bee?</p>	<p>Bee School Curriculum links</p> <p>Waggle Dance instructional video</p> <p>Parkland Hive video</p> <p>Book - The Beeman by Laurie Krebs</p>	<p>Bee</p> <p>Honey</p> <p>Hive</p> <p>Colony</p> <p>Antarctica</p> <p>Weather</p> <p>Beeswax</p> <p>Pollen</p> <p>Nectar</p> <p>Waggle Dance</p>

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2	3	<p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p> <p>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</p>	<p>To know in detail the parts of a bee</p> <p>To know there are 3 different roles for bees within a hive</p> <p>To know how and why a bee stings</p> <p>To know how deadly the Japanese Honey bee is and how it kills an enemy hornet</p> <p>To know what a bee eats and drinks</p> <p>To know that bees can swarm and why they do this</p> <p>To know bees have predators</p>	<p>Making systematic and careful observations</p> <p>Research</p>	<p>To make a detailed labelled diagrams of a bee, including stinger</p> <p>What does a bee need to live? What does a bee need to survive? video link</p> <p>Research - How does a bee make honey?</p>	<p>Understanding bees Education pack</p> <p>Parkland Hive video</p>	<p>Antennae</p> <p>Mouth</p> <p>Eyes (5)</p> <p>Tongue</p> <p>Legs (6)</p> <p>Thorax</p> <p>Abdomen</p> <p>Exoskeleton</p> <p>Worker</p> <p>Queen</p> <p>Drone</p> <p>Pollen baskets (knees)</p> <p>Spiracles</p> <p>Honey stomach</p> <p>Stinger</p> <p>Wings</p> <p>Japanese Honey Bee</p> <p>Swarm</p> <p>Predator</p>

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2	4	<p>Explore and use classification keys to help group, identify and name a variety of living things in their local and the wider area</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p>	<p>To know there are different varieties of bee</p> <p>To know that living things can be grouped in a variety of ways using a classification chart</p> <p>To know that environments can change and this poses dangers to living things, including bees. To know that there are 3 main threats to bees - pollution, climate change and pesticides</p> <p>To understand that bees have a flight path and that this is why some people use the term 'make a beeline for ' something</p> <p>To know that the word Dumbledore means bumblebee in old English</p> <p>To know honey has nutritional benefits</p> <p>To know beekeeping can be a career and generate income</p>	<p>To be able to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>To be able to report on findings and give conclusions</p> <p>To be able to identify similarities and differences</p> <p>Weighing and measuring/Food Technology</p>	<p>Research the different types of bee in the uk</p> <p>Go out into the school grounds and observe bees. What types can they see?</p> <p>Use a bee classification chart to identify types of bee</p> <p>Using a range of pictures of different bees, sort the bees into groups according to their appearance</p> <p>Make Honey & watermelon smoothies</p> <p>Beekeeper video link</p>	<p>What bee is this? video link</p> <p>Different types of bees link</p> <p>Parkland Hive video</p>	<p>Social bees</p> <p>Solitary bees</p> <p>Wallace giant bee</p> <p>Dwarf bee</p> <p>Bumble bees</p> <p>Flight path</p> <p>Global warming</p> <p>Pollution</p> <p>Threat</p> <p>Pesticide</p> <p>Flight path</p> <p>Climate change</p>

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2	5	<p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life process of reproduction in some plants and animals</p>	<p>To know the lifecycle of a bee for the queen, worker and drone bee</p> <p>To understand in detail what happens inside a hive</p> <p>To know how far a bee travels each day & throughout their lifespan</p> <p>To know how a bee carries pollen from plant to plant</p> <p>To understand the impact on our planet if bees disappeared - what would we miss?</p> <p>To understand the concept of a robobee and artificial ways we could pollinate</p>	<p>Reporting and presenting findings from enquiries</p> <p>Debating</p> <p>Describe/ Articulate</p>	<p>Create a bee life cycle diagram</p> <p>Instruction writing for a bee: How to pollinate a flower</p> <p>What pollinators visit our own school grounds?</p> <p>What's killing our bees? What is happening to our honey bees? Bee numbers in the world are declining. Discuss with the children why they think this might be?</p> <p>Debate: Should we work to save bees or would artificial pollination (AI) work?</p> <p>Use the VR headsets to look at bee gardens, pollination and a 3D image of a bee</p>	<p>Honey bee life cycle video link</p> <p>Why are bees attracted to flowers video link</p> <p>Which pollinators visit our school grounds</p> <p>Parkland Hive video</p>	<p>Hive</p> <p>Colony</p> <p>Queen bee</p> <p>Worker bee</p> <p>Drone bee</p> <p>Global warming</p> <p>Pollution</p> <p>Threat</p> <p>Pollination</p> <p>Travel</p> <p>Artificial</p> <p>Robobee</p> <p>Debate</p>

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2	6	<p>Describe how living things are classified into broad groups according to their common observable characteristics and based on similarities and differences, including microorganisms, plants and animals</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p>	<p>To know and understand the different roles each bee has within the hive/colony</p> <p>To know what makes a queen bee and understand what she does all day</p> <p>To understand the process - how bees make honey</p> <p>To understand how a worker bee is born</p> <p>To understand a day in the life of a worker bee</p> <p>To know that honey can be flavoured based on the pollen collected</p>	<p>Classify</p> <p>Research</p> <p>Describe/ Articulate</p>	<p>Create a bee fact file</p> <p>Learn about the work of Eva Crane (bee researcher)</p> <p>Diary entry - A day in the life of a worker bee/Queen bee</p> <p>Visit to the beehive</p> <p>Honey tasting</p> <p>To look at the work of artist Matthew Willey</p> <p>Matthew Willey Video link</p>	<p>Bee fact links</p> <p>BBC Bitesize Importance of bees video link</p> <p>Beehive facts for kids video link</p> <p>Inside the beehive video link</p> <p>Parkland Hive video</p>	<p>Hive</p> <p>Colony</p> <p>Queen bee</p> <p>Worker bee</p> <p>Drone bee</p> <p>Honey</p> <p>Flavour</p> <p>Global warming</p> <p>Pollution</p> <p>Threat</p> <p>Pollination</p> <p>Artificial</p> <p>Wax cells</p> <p>Foraging</p>



Trained Beekeepers: Mr Anderson
Miss Hollobone
Mrs Taylor
Ms Thorpe