

# Broomwood Primary School Key Knowledge

## Science

### Year: Pre-school

	Key knowledge/Experiences	Topic taught	Key vocabulary
<b>Plants</b>	Identify a tree, flower and plant. Understand that plants need water. Using magnifying glasses to explore plants. Notice growth in plants and simple changes e.g. leaves changing colour.	What happened to Jack's Beans? (Year A)	Flower, plant, grass, tree, grow.
<b>Animals including humans</b>	Name farm animals and their sounds (cow, sheep, pig, goat, duck, horse) Show care for animals. Name farm animals young.  Name basic body parts (head, arms, legs, hands, feet) Name basic facial features (eyes, ears, nose, mouth)  Name fruit and vegetables and know that they are healthy.  Know to wash their hands after the toilet.  Name immediate family members.	What would you find on the farm? (Year B)  What colours make you feel happy or sad? (Year B)  What happened to Jack's Beans? (Year A)  What can I do with water? (Year B)  Who lives in my house? (Year B)	Farm animal names. Head, arms, legs, hands, feet.  Eyes, ears, nose, mouth. Fruit, vegetables, healthy, unhealthy.  Clean, dirty, germs.  Mum, Dad, Sister, Brother.

<b>Living things and their habitats</b>	<p>To understand the life cycle of a chick.</p> <p>To identify mini-beasts and name a spider, bee, worm and ladybird.</p> <p>Handle mini-beasts with care.</p> <p>Make simple observations of mini-beasts.</p>	Who goes to the ugly bug ball? (Year B)	<p>Egg, chick, chicken, hatch.</p> <p>Spider, bee, worm, ladybird.</p> <p>Legs, body, head.</p>
<b>Materials</b>	<p>Materials is taught through continuous provision where children explore natural materials, textures, seasons and mixing and combining different materials.</p> <p>Sensory walks and key texts such as We're Going on a Bear Hunt.</p>	Throughout all topics and seasons.	Texture vocabulary.
<b>Seasonal change</b>	<p>Choose appropriate clothing for weather.</p> <p>Name basic weather conditions (wind, rain, sun, snow)</p>	<p>What can I do with water? (Year B)</p> <p>Throughout the year as seasons change.</p>	Hot, cold, sun, wind, rain, snow.
<b>Space</b>	<p>To identify the sun, moon and stars.</p> <p>To notice simple differences between day and night.</p> <p>To follow a simple routine e.g. at home or school.</p>	<p>How many nursery rhymes do I know?</p> <p>(Year A)</p>	Sun, moon, stars, day, night, bedtime, home, school, pre-school.
<b>States of matter</b>	<p>To understand what melting is when cooking e.g. chocolate.</p> <p>Describe different weather conditions using their senses e.g ice.</p>	Throughout all topics and seasons.	Melting, hot and cold.

# Broomwood Primary School Key Knowledge

## Science

### Year: Nursery

	Key knowledge/Experiences	Topic taught	Key vocabulary
<b>Plants</b>	Describe plants using their senses Notice simple patterns when leaf rubbing Planting and observing changes in beans Transient art using natural materials.	What happened to Jack's Beans? (Year A)	Plant, flower, leaves, stem, roots, grow.
<b>Animals including humans</b>	Compare farm animals with zoo animals Observe wild animals Show care for animals. Name farm animals young  Name detailed body parts (elbows, shoulders, knees, fingers, toes) Name detailed facial features (eyebrows, nostrils, eyelashes, cheeks)  Sorting healthy and unhealthy foods.   To know that we brush our teeth to keep them clean and healthy.  Name extended family members.	What would you find on the farm? (Year B)  What colours make you feel happy or sad? (Year B)   What happened to Jack's Beans? (Year A)   What can I do with water? (Year B)   Who lives in my house? (Year B)	Farm animals.  Zoo animals.   Elbows, shoulders, knees, fingers, toes.   Eyebrows, nostrils, eyelashes, cheeks. Healthy, unhealthy, sugar, fruit, vegetables. Mum, Dad, Nana, Grandad, Aunty, Uncle, Sister, Brother.  Teeth, toothpaste clean, hygiene.

<b>Living things and their habitats</b>	To understand the life cycle of a butterfly. To identify mini-beasts and name a woodlouse, millipede, wasp. Handle mini-beasts with care. Recognise where mini-beasts live. Make observational drawings of mini-beasts.	Who goes to the ugly bug ball? (Year B)	Egg, caterpillar, hatch, chrysalis. Butterfly.  Woodlouse, millipede, wasp, ant, worm, centipede, millipede, bee, ladybird.
<b>Materials</b>	Materials is taught through continuous provision where children explore natural materials, textures, seasons and mixing and combining different materials.  Sensory walks and key texts such as We're Going on a Bear Hunt.	Throughout all topics and seasons.	Texture vocabulary
<b>Seasonal change</b>	Choose appropriate clothing for weather. Name basic weather conditions (wind, rain, sun, snow)	What can I do with water? (Year B)  Throughout the year as seasons change.	Wind, rain, snow, sun, hot, cold, icy, foggy.
<b>Space</b>	To identify the sun, moon and stars. To notice simple differences between day and night. To follow a simple routine e.g. at home or school.	How many nursery rhymes do I know?  (Year A)	Sun, moon, stars, day night, school, nursery, home, bedtime, morning, day and night.
<b>States of matter</b>	To understand what melting is when cooking e.g. chocolate. Describe different weather conditions using their senses e.g ice.	Throughout all topics and seasons.	Melting, hot, cold, frozen, liquid.

# Broomwood Primary School Key Knowledge

## Science

### Year: Reception

	Key knowledge/Experiences	Topic taught	Key vocabulary
<b>Plants</b>	<p>Notice changes within plants and trees.</p> <p>Name and describe some plants/flowers (daisy, daffodil, sunflower, dandelion)</p> <p>Understand what a plant needs (water, sun, soil) (plant sunflowers)</p>	<p>How do I make sense of the world? (Year A)</p> <p>Are all mini-beasts scary? (Year B)</p>	<p>Leaf, stem, roots, flower, bud, daisy, daffodil, sunflower, dandelion, soil, water, sun, growth.</p>
<b>Animals including humans</b>	<p>Name more complex body parts including bones.</p> <p>Make observations of changes to the body when engaging in physical exercise.</p> <p>To understand what a germ is and how to prevent them.</p> <p>Describe animals through the senses, make observational drawings.</p> <p>Observe how animals behave differently through the seasons (hibernation/hatching/metamorphosis)</p> <p>Understand that a dentist looks after our teeth and know that we need to brush them twice a day.</p> <p>Understand the impact of sugar on our teeth.</p>	<p>Is everybody's home the same? (Year A)</p> <p>What do I know about me? (Year B)</p> <p>Was it once upon a mixed-up time? (Year A)</p> <p>Are all mini-beasts scary? (Year B)</p> <p>How do I make sense of the world? (Year A)</p> <p>Who can I ask for help? (Year B)</p>	<p>Bones, skeleton, skull.</p> <p>Elbows, shoulders, knees, fingers, toes.</p> <p>Eyebrows, nostrils, eyelashes, cheeks.</p> <p>Healthy, unhealthy, sugar, fruit, vegetables.</p> <p>Teeth, toothpaste clean, hygiene, plaque, gums.</p>

<b>Living things and their habitats</b>	<p>Sequence the life cycle of a frog. Name key features of a mini-beast. Learn where to find mini-beasts. Compare and categorise mini-beasts. Use senses to describe mini-beasts and handle with care.</p> <p>Exploration of the school grounds e.g. eco area/pond. Making simple habitats e.g. bug hotel/wormery. Comparing different animal homes/habitats. Name what animals eat.</p>	<p>Was it once upon a mixed-up time? (Year A) Are all mini-beasts scary? (Year B)</p> <p>Is everybody's home the same? (Year A) Are all mini-beasts scary? (Year B)</p>	<p>Life cycle, growth, tadpole, frogspawn, eggs, froglet.</p> <p>Mini-beast names (woodlouse, millipede, wasp, ant, worm, centipede, millipede, bee, ladybird)</p>
<b>Materials</b>	<p>To choose appropriate materials to make models in the workshop and construction area.</p> <p>To understand why some materials are better than others e.g. waterproof, flexible.</p> <p>To sort objects that float and those that sink.</p>	<p>Taught through CP and STEM opportunities all year</p>	<p>Texture vocabulary</p> <p>Waterproof, flexible, strong, bendy.</p> <p>Float, sink.</p>
<b>Seasonal change</b>	<p>Understand the need for sun cream Choose appropriate clothing for the weather Compare a hot and cold climate To understand why leaves fall.</p>	<p>Throughout the year as seasons change.</p>	<p>Hot, warm, temperature, cold, ice, freezing, frost, fog, hail, snow, rain, wind.</p> <p>Autumn, winter, spring, summer.</p> <p>Climate, temperature.</p>
<b>Space</b>	<p>To name planet earth. To understand what a constellation is. To understand what gravity is. To name some basic planets in our solar system.</p>	<p>Twinkle, twinkle little star how I wonder what you are? (Year A)</p> <p>What do I know about me? (Year B)</p>	<p>Earth, constellation, star, gravity, solar system.</p> <p>Planet names</p>

	To know that the sun is a star. To name the first person on the moon (Neil Armstrong).		
<b>States of matter</b>	To understand that water freezes to make ice. To observe ice melting and discuss changes. Make observations of hot and cold weather/items.	Throughout all topics and seasons.	Freeze, frozen, melt, change, boiling, hot, cold, warm.