Reception EYFS

Growing and Changing
Week 1: Seasons and Change

PKC Primary Knowledge Curriculum

Linked to: Understanding the World; The Natural World; People, Culture and Communities

Knowledge Objective	Suggested experiences/activities/opportunities	Outcomes
Session A: We have four seasons on earth; spring, summer, autumn and winter. **Vocabulary:** Spring, summer, autumn, winter, sun, snow, wind, rain, warmth	**Teacher-led input:** Show children a picture of summer and winter. Ask them what they notice about the two contrasting pictures. If children did this in nursery stretch and challenge with vocabulary/descriptive language. Read the story, Tree by Britta Teckentrup. Discuss how the tree changed throughout the year. Explain that we have four seasons on earth; spring, summer, autumn and winter. Remind children we learned last term about orbits and how our planet orbits the sun. Explain that our earth tilts slightly, show using a globe, so when we lean closer to the sun we have summer, when we lean away we have winter. Children will build on their understanding of Astronomy in KS1 and KS2. Explain that our natural world around us changes as the seasons change. Describe the features of the four seasons, linking to locally relevant places where possible. Describe the weather we can expect in each season. Explain we are moving from the season of winter into spring. **Teacher-led activity:** Go for a walk outside- ask children to look closely at the plants and trees. If you have cameras, ask children to take digital photos. Using clipboards, children could tick off things they see from a pre-prepared list, or draw some things they see. Collect leaves to bring back to the class to study. Talk about the seasons whilst exploring and discuss the weather.	Children will recognise there are different seasons, name them and will be able to describe things we do in the different seasons. When asked, children will be able to describe how the seasons change over a year.
Session B: People and places change over time **Vocabulary:** Change, time, past, present, buildings, roads, developments.	**Teacher-led input:** How do our seasons change throughout the year? Explain that alongside seasons changes, people and places grow and change over time too. Choose a locally relevant example of how people and places change, for example, new buildings in the local area, a new housing development, new roads, new modes of transport, shops changing. If your school is in a very rural area that hasn't changed very much over time, look at how people use the land and how that has changed. Create a simple timeline putting key changes in chronological order. If possible use old photographs of the local area. **Teacher-led activity:** Sorting pictures from the past and present; discussing reasons for sorting using key vocabulary and adult modelling full sentences e.g. This is a picture from the past because the cars are very different	Children will be able to describe how they have changed over time (linking back to previous units and how children have considered chronology).
Adult led activity:	Using the leaves collected on the walk, look at leaves with a magnifying glass, look at the patterns and shape. Do a leaf rubbing or printing activity and discuss the shape of the leaves.	Children look closely at leaves and discuss the shapes or patterns they notice
Texts:	Tree by Britta Teckentrup Additional texts: It Starts With a Seed by Laura Knowles The Story Orchestra: Four Seasons in One Day by Jessica Courtney-Tickle Four Seasons—Musical Books by Fiona Watt	
Additional provision:	Weather station role play area, tuff tray split into the four seasons with natural items such as pinecones, leaves and small world animals, create an information book of different seasons, create a seasonal picture with natural resources found in the outside classroom, designing new buildings on graph paper, children to then make the buildings using different construction materials, seasonal or weather observations.	

Reception EYFS

Growing and Changing
Week 2: Growing Plants

PKC Primary Knowledge Curriculum

Linked to: Understanding the World; People Culture and Communities; The Natural World

Knowledge Objective	Suggested experiences/activities/opportunities	Outcomes
Session A: Plants need water and light to grow. **Vocabulary:** Seed, soil, seedling, plant, grow, water, light, wilt,	**Teacher-led input:** Explain that scientists who study plants are called botanists. Botanists look closely at plants and notice how they grow and change. Sometimes botanists draw plants, being careful to draw exactly what they see. This week we will learn all about growing plants. (Reconnect to previous learning from Nursery if appropriate). We will be thinking like botanists as we will look closely at seeds and plants and notice how they change. Explain that plants are living things, they need water and light to grow. Show some pictures (or real plants) of plants that are watered and plants that are not. Show the children how a plants leaves wilt and eventually the plant will die without water. Explain rain brings water to many plants. **Teacher-led activity:** Plant a seed- use what you have available to you- you could use cress seeds as they are very fast growing and children will see results quickly. You could plant a range of seeds if you have some garden space or pots. Children can give their seeds water throughout the week. Keep an example of a seed that won't be watered so the children can look closely and see if it changes.	Children will know that some scientists look closely at plants. Children will experience growing a plant from seed. Children will be able to talk about how plants change
Session B: Living things, such as plants, grow and change throughout the year. **Vocabulary:** Deciduous, evergreen, spring, summer, autumn, winter, leaves	**Teacher-led input:** Check on seeds planted in Session A. Discuss any visible changes. Show children pictures of a deciduous tree throughout the year. Discuss how trees that lose their leaves are called deciduous trees and they lose their leaves in autumn. Trees that keep their leaves are known as evergreen. Look at some trees on the school grounds or in the immediate area. Name the trees and tell children if they are deciduous or evergreen. Use any locally relevant places e.g. a local park or botanical gardens to link to children's experience of plants and trees changing throughout the year. **Teacher-led activity:** Create a 'Tree through the year' painting or collage- think about which tree would have lots of leaves, which tree might have some that turn brown and fall to the ground etc. Children can use finger painting to mark the leaves on the trees or other methods and resources if you have them available.	Children will know some trees keep their leaves whilst others lose them during autumn.
Adult led activity:	Read the Tiny Seed by Eric Carl and support children to draw a story map showing what happened to the seed.	Children think about the order of events in a story and what a seed needs to grow.
Texts:	The Tiny Seed by Eric Carl Schaefer Additional texts: Plant the Tiny Seed by Christie Matheson Pick, Pull, Snap! Where Once a Flower Bloomed by Lola M. A selection of non-fiction texts about plants	
Additional provision:	A flower shop role play area with watering cans and fake flowers, a 'botanist' tuff tray with real plants, leaves, soil, magnifying glasses and tweezers, children to explore different herbs, cress observation writing, instruction writing for growing cress/plants, poster of the needs of a plant, draw and label a flower, favourite plant tally chart, measuring and comparing the weight and length of flowers.	

Reception EYFS

Growing and Changing
Week 3: Animals

PKC Primary Knowledge Curriculum

Linked to: Understanding the World; Past and Present; The Natural World

Knowledge Objective	Suggested experiences/activities/opportunities	Outcomes
Session A: Animals grow and change. **Vocabulary:** Recap from Nursery: Cow (calf), pig (piglet), bird (chick), Dog (puppy), Cat (kitten) New: Horse/foal Chicken/chick Duck/duckling Goose/gosling Hedgehog/hoglet	**Teacher-led input:** Explain we have been thinking about plants growing and changing. Ask children to share what they know about plants and how they change. Recap what children know about seasons. Explain that like plants, animals grow and change. Some animals change completely! (Children will build on this concept in KS1 and KS2 Science) If children studied PKC in nursery, recap the animals and their offspring they learned about before. If children have not secured this knowledge, teach it. Add in extra animals and the terms for their offspring to stretch children. **Teacher-led activity:** Sorting animals and their offspring. Model use of the correct vocabulary. If children have pets at home, include these in the the animals you teach. If children live in a rural area and see farm animals frequently, extend the list to animals they may be unfamiliar with. Think about the question, 'Do all animal babies look like their parents?'.	Children recognise the adult and child stages of various animals and their corresponding names e.g. cow (calf) etc. Children will understand that animals are living things that grow and change over time.
Session B: Caterpillars change into Butterflies. (Change as appropriate) **Vocabulary:** Change, grow, caterpillar, cocoon, transform, butterfly, (metamorphosis)	**Teacher-led input:** If children looked at caterpillars and butterflies in nursery, you may prefer to change this lesson to another animal, e.g. chicks or frogspawn. If you can do it safely, have real animals for children to observe. If not, use clear pictures and videos to support their understanding. Read Monkey Puzzle by Julia Donaldson. Discuss why the Butterfly was confused about what the monkey's mum would look like. Emphasis that the butterfly doesn't have babies that look like him, so he assumed the monkey's mum wouldn't look the same as him! Explain that a total transformation in science is called a metamorphosis. Some animals change through metamorphosis, some don't. People don't change in this way, when we grow we look similar throughout our life cycle. **Teacher-led activity:** Sorting the stages of the life cycle of a butterfly; talking about how the caterpillar changes completely once it emerges as a butterfly. Ordering the stages using 'first, next, after that'. (Change if you are doing another animal for this lesson) Encourage children to describe what happens at each stage of the life cycle.	Children recognise that a caterpillar changes into a butterfly. (Change as appropriate)
Adult led activity:	Children to create a poster or fact book about a chosen animal and include information, labels and drawings about their offspring. Children can use non-fiction information books from the classroom to support this. If it comes up, discuss how most mammals give birth to live young, whilst birds and reptiles etc. lay eggs.	Children have experience engaging with non-fiction texts.
Texts:	The Very Hungry Caterpillar by Eric Carl Monkey Puzzle by Julia Donaldson <u>Additional texts:</u> Tadpole's Promise By Jeanne Willis Seasons by Emily Bone	
Additional provision:	Small world animals and their young for children to match in the tuff tray, provide a selection of eggs (chicken, duck, quail) for children to explore and write observations of, children to draw and write daily observations of the caterpillars (or whichever animal you have chosen), create a cocoon from recycled materials, children to make butterflies using	

Reception EYFS

Growing and Changing
Week 4: Food and Farming

PKC Primary Knowledge Curriculum

Linked to: Understanding the World; Past and Present; The Natural World

Knowledge Objective	Suggested experiences/activities/opportunities	Outcomes
Session A: We can grow food to eat. **Vocabulary:** Plant, vegetable, fruit, ground, crops, farmer, harvest	**Teacher-led input:** Explain that we have been thinking about growing and changing. People grow and change, animals grow and change, and plants grow and change too. Read the Enormous Turnip. Discuss what happened to the turnip. If possible have a real turnip for children to look at. Explain that we can grow food to eat. Talk through how seeds are planted in the ground and can grow into food we eat. Show some pictures of fruit and vegetables growing, discuss how some grow underground (e.g. potatoes), some on the ground (e.g. pumpkins), some on bushes (e.g. berries) and some on trees (e.g. apples). **Teacher-led activity:** Show children a range of fruit and vegetables, if possible still with their leaves on (eg. Carrots with tops). Ask children to feel them, look at the different parts. Make a vegetable soup, fruit salad or other simple dish using fruit or vegetables that the children can name, describe and then taste. Explain also that sometimes we eat the leaves of plants such as spinach, lettuce, kale. Explain that some fruit grow in warmer countries than our country, such as oranges and lemons. Show pictures of orange trees in Spain and locate Spain on a map. This can be done in small groups and repeated in Session B if necessary.	Children know that some of our food grows as plants. Children can name and describe a range of fruit and vegetables. Children have experience handling and tasting a range of fruit and vegetables.
Session B: Farmers harvest crops for us to eat **Vocabulary:** Farm, tractor, field, harvest, crops, seeds	**Teacher-led input:** We can grow things to eat in our homes and gardens, but farmers have much more space to plant things to grow. Farmers have huge fields and plant many, many fruit and vegetables to grow. When the plants, called crops, are ready, a farmer will harvest them which means cut the plants and gather them together. If possible show a video of a farmer harvesting crops. Role play picking fruit and vegetables, recall how hard the characters had to pull to harvest the enormous turnip. If you have any crops growing nearby, talk about what is growing and when the farmer may harvest the crops. **Teacher-led activity:** Repeat the task from Session A if you need more time to give all children an opportunity to make something. If this has been completed, look at some non-fiction books about food and farming.	Children understand that farmers can grow food for us to eat. Children know some crops that grow nearby (if locally relevant).
Adult led activity:	Planting activity; in small groups children can plant a seed. Use resources that are available to you e.g. if you have a garden area, children can spend some time planting things there. If your resources are limited, children can plant the seed in biodegradable pots or anything you have available. The seeds could be cress, or beans, or any fast growing plant. .	Children have experience planting seeds and observing plant growth.
Texts:	The Enormous Turnip Oliver's Fruit Salad by Vivien French <u>Additional texts:</u> Usborne Look Inside a Farm by Katie Daynes Oliver's Vegetables by Vivien French	
Additional provision:	Greengrocer or farm role play area, provide children with a selection of fruits and vegetables cut open with magnifying glasses and tweezers to explore the seeds, soup making in the water or tuff tray with different ingredients and/or coloured water, design a fruit/vegetable salad/kebab and make with craft resources, recipe/instruction writing, seed planting in the outside area, small world farm play, measuring/comparing/ordering crops	

Reception EYFS

Growing and Changing
Week 5: How we Grow and Change

PKC Primary Knowledge Curriculum

Linked to: Understanding the World; Past and Present; The Natural World

Knowledge Objective	Suggested experiences/activities/opportunities	Outcomes
Session A: We grow and change throughout our lives. **Vocabulary:** Baby, toddler, child, teenager, adult, elderly person, size.	**Teacher-led input:** Children thought about how they've changed so far in their lives during the 'All About Me' unit of work in Autumn term. This is another chance to think about how we have grown and changed, building on what they can already talk about. Discuss how we've changed so far in our lives. Explain that when we learned to walk we became toddlers. When we are older we will become teenagers. Explain that when we were babies we needed lots of help from an adult to eat, move around, get dressed etc. Now we have become more independent which means we can do more ourselves. If you are happy to, show children a baby photo of you or someone they know well. **Teacher-led activity:** Sorting activity; what can we do now that we couldn't do when we were babies? Use picture cards for children to sort. Ask children to explain why they sorted a card in a particular way. E.g. I put this here because now I can ride my scooter, but when I was a baby I couldn't do that.	Children can describe some of the phases of the human life cycle. Children know they have changed since they were born and can describe some of the things they can do now that they couldn't before.
Session B: When we become adults there are many different things we can do. **Vocabulary:** Adult, (grown up), job, home, travel, various types of jobs.	**Teacher-led input:** Explain to children that we have been learning about growing and changing this half term. Recap all the things they have done, showing some photos to help them to remember. Read Think Big! By Kes Gray and Nathan Reed. Talk about all the jobs that Humpty Dumpty's friends thought he could do (scientist, train driver, traffic warden, doctor etc). Talk to the children about what they would like to do when they grow up. Would they like to travel to a different country? Would they drive a car? Show children some pictures of different jobs, ensure you show a diverse range of people in different occupations. **Teacher-led activity:** Give children a template to work on, ideally with a photo of their face in one corner and a big thought bubble to draw in. Support them to think of what they might do when they are an adult. Children can draw what they'd like to do and write a short sentence explaining what they dream of doing when they are older. (If children did this activity in nursery it might be interesting to see if their ideas have changed!)	Children will think about things they'd like to do in the future; travel, talents, interests, jobs, etc. Children will have the opportunity to think about a wide range of careers they may aspire to do in the future.
Adult led activity:	Are the oldest people the tallest? Think about how you will investigate this. Do we think the oldest people are the tallest? Ask some children's age and measure their height. Support children with measuring. Talk about which number is biggest if you are measuring with a tape measure. You might want to measure by using string and then lining up the strings to see which is longest. Discuss what children found out.	With support, children have the opportunity to seek patterns, test an idea, measure, compare and contrast and draw conclusions.
Texts:	Think Big! By Kes Gray and Nathan Reed Additional texts: When I Grow Up Paperback by Jen Hales	
Additional provision:	Home role play area with babies, children to bring in pictures of themselves as babies to show and talk about with friends, provide children with mirrors so that can look at how they have changed since they were a baby, fact book about themselves, 'what I want to be when I grow up' poster or book, measuring each other's height using tape measures, cubes or string, poster detailing and showing the different stages of the human lifecycle, costumes and non-fiction books of different occupations.	