



MEDIUM TERM PLANNING

Autumn Term			
SUBJECT: Science	Topic: Animals Including Humans	Year: 1	TERM: This is a 14 week unit (12 lessons including 2 assessment opportunities)
<p>NC Objectives: Pupils should be taught to:</p> <ul style="list-style-type: none"> ● I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ● I can identify and name a variety of common animals that are carnivores, herbivores and omnivores. ● I can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) ● I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 			
<p>WS Objectives: Pupils should be taught to:</p> <ul style="list-style-type: none"> ● Asking simple questions and recognising that they can be answered in different ways ● Observing closely, using simple equipment ● Performing simple tests ● Identifying and classifying ● Using their observations and ideas to suggest answers to questions ● Gathering and recording data to help in answering questions. 			
STRAND: Biology	<p>Key Indicators: Can name a range of animals which includes animals from each of the vertebrate groups. Can describe the key features of named animals. Can label key features on a picture/diagram. Can write descriptively about an animal. Can write a 'What am I?' riddle about an animal. Can describe what a range of animals eat. Can compare and classify animals.</p>	<p style="text-align: center;">Key Vocabulary</p> <p>Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, reptile, amphibian, mammal, omnivore, carnivore, herbivore, all senses.</p>	



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Learning Objectives	Whole Class Teaching including key questions	Recording of outcomes (Differentiated where appropriate)	Assessment Opportunities	Resources
<p>Pre-assessment opportunity (PP Slide 2)</p> <p>Choose the pre assessment that suits your class e.g. Concept cartoon (provided) Plickers Assessment (online quiz) Mind mapping, KWL chart, Knowledge retrieval quiz, sorting activity, matching activity, modelling activity. This should not be a whole lesson and should take no longer that 15 mins. Our recommendation is using the concept map on next slide.</p>				
<p><u>Week/Lesson 1</u></p> <p>LO: I can identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense.</p> <p>WS: I can observe features of the human body.</p>  <p>SE- I can identify different parts of the human body</p>	<p>Slide 3- Share the Learning Objective (LO), Working Scientifically (WS) and Scientific Enquiry (SE) for the unit. Introduce children to the symbols. Use the large symbols from the PSTT Website to display in the classroom.</p> <p>Slide 4- Share Lesson objectives, WS and SE for the lesson. For further subject knowledge you can follow the module on Reach Out CPD. (Link on slide)</p> <p>Slide 5- Children to add questions on post it notes. Display throughout the topic and put on ‘what we know’ section once answered. This can be put in floor books. Links to science capital with adding in scientists and jobs.</p> <p>Slide 6- Concept Map. Provide children with their own copy (or group copy if preferred) Children to add any notes and stick in books after unit title. Children share some of their ideas and add to the floor book. Provide labels for SEN children to add to the parts they know or language they have heard of.</p> <p>Slide 7- Our body. In small groups, children to draw around one person in their group on large paper. Children try and label their drawing with the following: head, ears, neck, eyes, mouth, arms, elbow, hands, feet, fingers, chest, stomach/tummy, knees, legs,</p>	<p>Teacher to question children and give children some prompts as to what they might like to find out.</p> <p>Listen to children and tell them to write down things they can see or what link.</p>	<p>Challenge any misconceptions.</p> <p>If working in a group, note down children’s ideas and level of knowledge of the topic.</p>	<p>PowerPoint PSTT symbols.</p> <p>Post it notes</p> <p>Concept map-resources.</p> <p>Large paper/pens.</p>


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	<p>toes. These labels can be provided so they can stick on if they have trouble copying from the board or TA scribe. Place a completed version on the board and play Simon Says to ensure all children repeat the parts of the body.</p> <p>Slide 8- Play parts of the body from bbc.co.uk. (Link on the slide). https://www.bbc.co.uk/bitesize/topics/z9yycdm/articles/zqhbr82</p> <p>Slide 9- Children to go back to their outline to see if they need to change or amend. (Take photos- AfL) Click on the picture to share. Assessment point- picture in the floor book- teacher/TA to make notes of any child who does not know all of the parts of the body. Challenge- provide children with a challenge envelope with the labels; shin, ankle, knee cap, thigh, waist, spine, shoulder, eye lid and nostril. Can children add these additional labels?</p> <p>Slide 10- Let's apply our learning- Play Simon Says where children have to point to different parts of the body. Teacher/TA to look for any children who are hesitating. Finally, can the children as a class add labels to the diagram to complete the labelling activity? Use a child to stick post it notes to- adds to the fun! (Depending on your class, you could provide some labels in small groups/pairs and they could add labels to one person in the group/pair) Take pics for floor books.</p> <p>Take a picture of children's model and use the LO and WS assessment with picture in children's books.</p> <p>Slide 11- Children self-reflect on the LO using the unit title page, colour face and tick the WS and SE covered.</p>	<p style="text-align: center;">Small groups.</p>	<p>Note children who are struggling to participate and make a targeted group with adult support.</p> <p>Assessment- Can children use their observation skills to identify parts of the body? Highlight the appropriate box.</p> <p>Children's self evaluation.</p>	<p>Body outline sheet in resources (optional)</p>
<p><u>Week/Lesson 2</u></p> <p>LO: I can identify, name, draw and label the basic</p>	<p>Slide 12- Lesson 2 let's recap previous learning. Provide children with a copy of this labelling diagram. Can they label the body?</p>			<p>Body outline</p>



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<p>parts of the human body and say which part of the body is associated with each sense.</p> <p>WS: I can carry out simple tests to compare and classify.</p>  <p>SE: I can identify each taste and categorise them into sweet, salty, sour and bitter.</p> 	<p>Slide 13- Children to add questions on post it notes. Display throughout the topic and put on 'what we know' section once answered. (Add any post it notes to the page in the floor book) Links to science capital with adding in scientists and jobs.</p> <p>Slide 14- Share LO, WS and SE for the session.</p> <p>Slide 15- Big Question- Are all our features the same? Children to look at their partner and discuss what they have the same and what is different. Start with head, then compare arm length, then hands, height, legs, size of feet.</p> <p>Slide 16- Ask children- what do we mean by the word senses? Reveal each picture and see if children can relate each picture with the sense.</p> <p>Slide 17- taste- Explain to children that we will be using the different parts of the tongue to taste.</p> <p>Slide 18- Assessment point- Can children carry out the test and classify the foods correctly. Stick the table in children's science books. Children can write the name of the food or draw into table. The assessment is on the carrying out the test not on recording in the table. WS can be evidenced by pictures and post it note assessment.</p> <p>Slide 19- Did you know.... Pair children up. Tell one child to close their eyes and hold their nose. Give child 2 a food (either a piece of apple or potato), ask child 1 to eat it with their nose held. Can they guess the food? Swap over. How did it feel when they couldn't smell?</p> <p>Slide 20- Sight. Tell children we will finish off the lesson by thinking about another sense: sight.</p>	<p>Can be done individually or teacher/TA can scribe ideas.</p> <p>Children to work in partners.</p> <p>Mixed ability groups.</p> <p>Paired activity</p>	<p>Listen to children's responses and challenge misconceptions.</p> <p>Encourage scientific vocabulary being used.</p> <p>WS and LO criteria can be found in resources.</p>	<p>Post it notes.</p> <p>Recording table.</p> <p>WS and LO statements.</p>
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	<p>Slide 21- Tell children that this is not to scale but can have some fun with it. Ask children to stand at the other side of the room and cover over 1 eye. Can they read any letters? Now move one step closer etc etc. Now repeat with the other eye. Explain that sometimes we have a more reliable eye but you don't notice as you use both eyes usually. If someone was stood fairly close to the letters and still could not read them- what might this suggest? How might you adapt this test for young children? Use big and small pictures.</p> <p>Slide 22- Lets reflect- Plenary- Point to different parts of the body, can children recall? Children to recall the 5 senses before they fly in. If children are unsure point to each picture and ask children to repeat. Share the new taste vocabulary- what did it feel like when we tasted each thing? How can we describe the words? Sing a body song e.g., head, shoulders, knees and toes or Simon says or Okey Cokey.</p> <p>Slide 23- Children to reflect on the LO, Ws and SE using the unit page.</p>		<p>Children's self-reflection.</p>	
<p><u>Week/Lesson 3</u></p> <p>LO: I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>WS: I can make predictions when using my senses.</p> 	<p>Slide 24- Let's recap lesson Give all children a bingo board and counters, teacher calls the body parts and children cover them up if they have them.</p> <p>Slide 25- Share LO, WS and SE with the children. Slide 26/27- Smell- read information on the slide to the children to put this into context.</p> <p>Slide 28- What's that smell? Smell each jar, can you work out what it is? These two activities work best when children are split into 2 groups and swap over.</p>	<p>Teacher/ TA is the caller and the children can work individually or in pairs.</p> <p>Two large groups. Use the STEM sentences on the board to model talk.</p>	<p>Note children who are struggling to identify basic parts. Ta to write names.</p>	<p>Bingo cards and boards in resources.</p> <p>Range of smell jars.</p>



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<p style="color: green;">animals including fish, amphibians, reptiles, birds and mammals</p> <p style="color: purple;">WS: I can ask questions to identify, sort and classify.</p>  <p style="color: purple;">SE: I can classify animals based on their characteristics.</p> 	<p>Slide 36- Children to order the sound cards from the loudest to the quietest.</p> <p>Slide 37- Share LO, WS and SE with children.</p> <p>Slide 38- Give children an animal- children ask questions to ascertain who the animal is. What makes a good question? Some example questions on the slides. Allow a few children to have a go.</p> <p>Slide 39- Let's classify your soft toy. Children to bring in teddies/plastic animals from home. Sit children in a large circle or 2 smaller if you have a TA. Place down 2 hoops and ask children- how can we sort out teddies based on their characteristics? Children may say- has legs/no legs. How many legs (add more hoops if needed) Does the animal have a beak? tail? wings? mane?</p> <p>Slide 40- Awesome animal's clip. You may only want to play parts of the clip as it is 13 minutes long. There are discussion points through the video.</p> <p>Slide 41- Place the sorting hoops on the tables with a selection of animals. Children to sort the animals into the groups on the table. Take a picture for floor books. Children can then come up with their own sorting diagram (this can be one they have already done to sort a selection of animals into) Assessment opportunity- Can children come up with suitable questions to sort?</p> <p>Slide 42- Take pictures of children's groupings. LO and WS statements in resources.</p> <p>Slide 43- Recap on LO, WS and SE. Children top self-reflect on unit title.</p>	<p>Teacher/TA to encourage questions and reasons for their groupings.</p> <p>Teach may have to intervene and model a couple of groups first.</p>	<p>ask them to explain their thoughts.</p> <p>Challenge children to pose questions.</p> <p>Ask children's questions based on what they have seen.</p> <p>Use WS criteria to assess.</p> <p>Children's self-reflection.</p>	<p>Cards with animal names on.</p> <p>Soft toys from classroom/home.</p> <p>Sorting hoops.</p> <p>LO and WS objectives in resources.</p>
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<p><u>Week/Lesson 5</u></p> <p>LO: I can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>WS: I can make comparisons between animals and give my reasons.</p>  <p>SE: I can spot patterns between different groups of animals.</p> 	<p>Slide 44- Let's recap. Point to each body part, can children name them.</p> <p>Slide 45- Animal groups. Ask children what animal groups can they remember? Children may have picked up on vertebrates too which they could use as a category or this could be used as a challenge. Children TTYP and feedback.</p> <p>Slide 46- Share LO, WS and SE for the lesson.</p> <p>Slide 47- Read the book Creaturepedia or an equivalent animal book with facts. Ask which animal is your favourite? What makes your favourite animal so amazing?</p> <p>Slide 48-Sort animals according to structure Look at vertebrate/invertebrate- this will be reinforced with animal xrays (role play area VETS) Take picture for floor books.</p> <p>Slide 49- Pass around a selection of animal xrays. Ask children what they can see. This can be done on the carpet or in small groups. Can they spot similarities/differences between the animals. Can they match the xray with the animal picture? Can they spot vertebrates and invertebrates?</p> <p>Slide 50- Comparison activity This could be done in groups and TA/teacher scribe. Children could be given labels/pictures if they are not able to write or read.</p> <p>Slide 51-EXT How big, how small. Attach a measuring stick to the wall and place picture of the animals beside depending on its height.</p>	<p>Point, say and ask children to repeat so less able learners can understand the language related to different body parts.</p> <p>Encourage children discussing animal features.</p> <p>Tell children to look at the animals carefully. Encourage similarities and differences.</p> <p>You will need to look up the heights with the</p>	<p>Ask children to repeat body names.</p> <p>Question children regarding features of the animals.</p> <p>Use WS criteria to assess.</p>	<p>Animal book.</p> <p>Animal xrays</p> <p>Comparison sheet Animal pics.</p>


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	<p>Add pictures or labels of each child to the chart so they can see which animals they are as big as.</p> <p>Slide 52- Recap on Lo using the LO, WS and SE on the unit title page.</p>	<p>children and attach animals they suggest to the height measurer e.g name some massive animals. Then teacher to research height.</p>	<p>Children self-assess.</p>	<p>Comparison sheet.</p>
<p><u>Week/Lesson 6</u></p> <p>LO: I can identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>WS: I can use sorting rings and Venn diagrams to record my findings.</p>  <p>SE: I can identify and sort animals according to what they eat.</p> 	<p>Slide 53- Share LO, WS and SE with the children.</p> <p>Slide 54- Children to guess what this zoomed in image is- ask them to look carefully at the features. All images from Explorify - best to use from their site as easier to zoom out. Ask children what they think it may be each time.</p> <p>Slide 55- Read the Tiger who came to tea. Ask, is this book accurate? How would we find out what tigers eat? (Click on book for youtube link for read along)</p> <p>Slide 56- Sort teddies into categories of what they might eat. (Pre assessment point) Take picture for floor books.</p> <p>Slide 57- Watch this BBC Clip. What types of food do animals eat? - KS1 Science - BBC Bitesize</p> <p>Slide 58- 3 paper plates - children to sort animals into categories of what they eat- Introduce vocabulary Herbivore, omnivore and carnivore. Children to do this on their table groups. Children to record their findings on a Venn diagram- model this. (Next Slide) OR you could take photos for books as this is an assessment point for recording. Venn diagram- introduce overlap for Omnivore.</p> <p>Slide 59- Model how to complete the Venn diagram.</p>	<p>Encourage children to refine their guess based on what they can see.</p> <p>Do children have any questions about what they have just seen?</p> <p>Teacher model on the carpet. Question what their teeth may be like.</p> <p>Teacher model</p>	<p>Do they have any sci language for food groups?</p> <p>Use WS assessment.</p>	<p>Animal teddies.</p> <p>Venn diagram sheet.</p>



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	<p>Children to use the Venn diagram sheet to sort the animals.</p> <p>Slide 60- Animal teeth. EXT activity Make model masks for display- open wide. Children choose a mouth template and decide which teeth to add eg pointed teeth for lion (Carnivore), square teeth for goat (herbivore) and a mix for a bear who eats both. (Omnivore)</p> <p>Slide 61- Children self-reflect on LO, WS and SE.</p> <p>Slides 62/63 knowledge quiz. You may wish to use the Plymouth Science tests instead, downloadable from the resource area on the website. Plymouthsciencecic.co.uk for FREE.</p>		Children self-reflect.	Masks/ plates and art materials.
	<p>This unit has a further 6 lessons extension with resources if you wish to extend the learning further or even substitute some of the earlier lessons with.</p>			
<p><u>Week/Lesson 7</u></p> <p>LO: I can identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense.</p> <p>WS: I can complete a simple table.</p> 	<p>Slide 64- title page for the extension unit. Slide 65- share LO, WS and SE for the extension unit</p> <p>Slide 66- Shout out part of the body, children touch it on their bodies. Click on the link What are the parts of the human body? - BBC Bitesize Share with children a short clip about how lots of our bodies are the same but we can use them in different ways.</p> <p>Slide 67- Children to add to their concept map any new learning.</p> <p>Slide 68- Share LO, WS and SE for the lesson</p> <p>Slide 69- Explain to children that we will be exploring some of the things that our bodies can do. Not everyone will be able to do all of them. After each action, children need to mark in the box if they</p>	<p>Whole class participation.</p> <p>Model completing the recording table with children (in resources) LA children may need support with this.</p>	<p>Note any children who do not know the basic body parts- Target group with flash cards.</p> <p>Do children know how to complete a table using</p>	PP



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<p>SE- I can identify how my body moves.</p> 	<p>could do it or not. Ask children what would be an appropriate mark to make e.g. tick, smiley face, stars. Model how to do this then start the activity. This is a WS assessment piece.</p> <p>Slide 70-74 Ask children to find a space in the classroom OR you could print the cards in resources and hold up in the hall or playground. Children try and perform the moves. After each move, children mark on their table whether they could do it or not. (They could tick, smiley face, star- however they would like to complete their table. (In resources)</p> <p>Ask children to count how many from their table (Assessment focus). Now hold up the cards or show each move again. Ask children to raise their hand if they could do it. Children to notice that they are all different and could do different things. Ask children to think of something they do out of school, how many other children do that e.g. horse-riding, swimming, karate.</p> <p>Slide 76- Share this video with children to show that it is perfectly normal to be able to do some things and not others. Slide 77- Recap on LOs. Children to reflect on unit title pages and tick WS and SE covered.</p>	<p>Guide children in completing the table accurately. Model further if needed. TA may be able to take a guided focused group.</p> <p>Children to self-reflect in books.</p>	<p>marks to represent data?</p> <p>Mark children work using WS criteria (resources)</p> <p>Self-reflection</p>	<p>Flash cards printed from resources or slides.</p> <p>Unit title pages at front of books.</p>
<p>Week/Lesson 8</p>	<p>TAPS Assessment opportunity</p>			
<p>Week/Lesson 9</p> <p>L.O- I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p>Slide 78- Share LOs for the session.</p> <p>Slide 79- Explain that in this lesson we will be exploring senses further. Point to each picture, can children explain the sense and why we need it?</p> <p>Slide 80- Senses walk</p>	<p>Whole class participation</p> <p>Small group work</p>	<p>Note any children who cannot remember the senses or what we need these senses for.</p>	<p>Pp</p> <p>Clip boards</p>



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<p>WS: I can record my findings using drawings, writing or symbols.</p>  <p>SE: I can identify my 5 senses when exploring the outdoor environment.</p> 	<p>Give children clip boards with their senses sheet. Take them to different parts of the outdoor grounds, this can include local park, nature track, playground, field etc. Ask children to look around what can they see? Sit children down in each area, what can the hear? What can you touch which has different textures e.g. Holly leaves, silky flower petals, rough tree bark etc. Ask children is there anything that you could taste? E.g. black berries, nettles for nettle tea. You could pick some for the children if you complete a risk assessment. Ask children what they can smell. Children to jot down their ideas on their sheet.</p> <p>You could pair children up if there are children who struggle writing.</p> <p>Slide 81- Demonstrate to children how to complete their recording table. They could draw or write their findings in each box. LA children could be supported by TA to scribe or take pictures to stick on their sheet and add to floor book.</p> <p>Slide 82- What did you find out? Go through each sense- ask children what they found. Focus on vocabulary development e.g you felt a holly leaf, what did it feel like?</p> <p>Slide 83- Recap on LOs and children self-reflect.</p>	<p>You could pair children up if there are children who struggle writing.</p> <p>Teacher modelling before activity starts, state expectations.</p> <p>Children self-reflect</p>	<p>Listen to children's responses and prompt and probe with additional questions.</p> <p>Self-reflection.</p>	<p>Recording sheets (resources)</p>
<p><u>Week/Lesson 10</u></p> <p>L.O- I can identify and name a variety of common animals such as minibeasts</p> <p>WS: I can observe closely the structure of different minibeasts.</p>	<p>Slide 84- share LO with children.</p> <p>Slide 85- ask children- what is the zoomed in image? Invite children's suggestions. Click on the image to go to the Explorify activity. Ask children if they have revisited their ideas based on them looking closely- ask children what they can see in the picture and what could it be?</p> <p>Slide 86- Explain to children that they will be using microscopes, easi scopes or magnifying glasses to observe mini beasts closely.</p>	<p>Question chn ask what could it not be questions too.</p> <p>Teacher to demonstrate how to zoom in and out on microscopes. Children to go out</p>	<p>Question children about what</p>	<p>PP</p> <p>Petri dishes, bug collecting equipment</p>



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 <p>SE: I can identify different mini beasts based on observations.</p> 	<p>Take the class on a mini beast hunt and collect some minibeasts to put in a petri dish or larger dish to observe under microscopes. Demonstrate how to zoom in and zoom out.</p> <p>Slide 87- Demonstrate how to use pooters and collecting jars to capture minibeasts safely. Give children 20 mins to find some minibeasts. Remind children of the rules. Share mini beats hunt rules with children and how they need to be respectful of living things and the habitats.</p> <p>Slide 88- Demonstrate how to zoom in and zoom out. Children to observe their mini beasts under the microscopes and with their partner/group chose one to draw in detail- keep looking at the minibeast to draw each part carefully. (Observing is a WS focus) Look at children’s drawing and observe how children are using the observation equipment to make your judgement. LO and WS statements are in resources.</p> <p>Slide 89- Mini beast gallery Ask children to place their drawings on the table. Play some soothing music and ask children to walk about and look at each other’s drawings. Then return minibeasts to natural habitats. Clean microscopes.</p> <p>Slide 90- children reflect on LOs of the lesson.</p>	<p>looking for mini beasts in small groups.</p> <p>Question children’s drawings and ensure they are looking closely and not rushing.</p> <p>Children to state which ones they like and why.</p> <p>Children self-reflect using title pages.</p>	<p>they can see and not what they think they can see. Can children use equipment safely?</p> <p>Use WS statements to assess.</p> <p>Self-reflection</p>	<p>. Microscopes, easelscopes, magnifying glasses, microscopes.</p>
<p><u>Week/Lesson 11</u></p> <p>L.O- I can identify and name a variety of common animals such as birds</p> <p>WS: I can closely observe bird characteristics.</p>	<p>Slide 91- Let’s recap our learning- what did you notice when observing through a microscope that you never noticed before? Children to discuss, they may talk about tiny hairs on legs, certain patterns.</p> <p>Slide 92- Share LOS with children.</p>	<p>Teach children the importance of looking closely.</p>		<p>PP</p>

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<div style="text-align: center;">  <p>SE: I can research facts about different birds.</p> <hr/>  </div>	<p>Slide 93- Bird watching- click on the Clip to watch UK Birds. British Birds STEM</p> <p>Slide 94- Explain to children that they will be bird watching in this lesson and identifying birds using an id guide. Birds A- Z Bird Guides - The RSPB- click on this link and allow children to listen to some of the audio files (we will be using our sense of hearing and sight for bird watching) Birds A- Z Bird Guides - The RSPB</p> <p>Slide 95- Bird Identifier British Garden Birds and Many More - The RSPB Children can use this link to find the birds they found or the ID cards. If you do not have many bird around the school, you could cut up and laminate the cards and place them around the school grounds, once found, children then use their id card to identify which one they have found.</p> <p>Slide 96- Children to draw into books. LO and WS assessment can be found in resources. Children to think about the critique from last lesson and you are looking for improvements. These pictures will make great displays.</p> <p>Slide 97- Bird Gallery Walk around the room to soothing music, children to look at each other’s work. Children can also take with them the ID kit to see how close the bird looks to the original- can they identify the bird. Children return to their seats and write the name of the bird on the sheet.</p> <p>Slide 98- children to reflect on LO using the unit page.</p>	<p>Children to work in small groups.</p> <p>Children can work independently on this. Ensure children are looking closely, children think about proportions and size, colour and specific features.</p> <p>Self-reflection.</p>	<p>Question children by questioning the birds they find- how do you know it is that bird?</p> <p>Assess using Ws assessment.</p> <p>Self-reflection</p>	<p>Bird ID (Resources) Binoculars.</p>
<p><u>Week/Lesson 12</u></p> <p>L.O- I can identify and name a variety of common</p>	<p>Slide 99- What do we know about birds? Children to tell their partner what they learnt last lesson. Focus on the features of birds and how they can tell which bird is which. Reveal some bird facts to share.</p>			

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<p>animals including fish, amphibians, reptiles, birds and mammals.</p> <p>WS: I can interpret my results and make simple conclusions.</p>  <p>SE: I can look for patterns in my data.</p> 	<p>Slide 100- Share Los for the lesson.</p> <p>Slide 101- What am I? Stick an animal card on the back of each child, the children move around the room when they meet another child, they ask them questions about the animal on their back to help them guess e.g. does it live on land? When they have guessed the animal, they go back to the teacher to swap their animal card.</p> <p>Slide 102- Why do animals camouflage? Children discuss question and then click on the link to watch a clip about camouflage. Camouflaged animals in the jungle - KS1 Science - BBC Bitesize</p> <p>Slide 103- Camouflage investigation. Scatter long and short pieces of coloured wool onto a stretch of grass (you will need 50 pieces). These represent insects Children are the birds; their job is to go and find some insects to eat. Give children 15 seconds to pick up as many as they can. If they have not found many send them back for another 15 seconds.</p> <p>Slide 104- What did we find? Children to come to the front with their cubes and stack the colours. This gives a visual representation of their results. You could stick to a board and put axis and title. Ask children questions about the results. Which colour did we find most of? (Contrasting colours) why? What did we find least of? Why? You could see the green wool when you looked closely but when limited with time this was tricky.</p> <p>Slide 105- Interpret our results. Children can write or you could film children's explanations of the results. Recording sheet in resources if needed or use STEM sentences on screen.</p>	<p>Can children using their observation skills to describe?</p> <p>Do children have any questions about animals and camouflage?</p> <p>Children to collect individually or in pairs.</p> <p>Class demonstration</p> <p>Target group if needed but children should be able to do this independently.</p>	<p>Note any misconceptions.</p> <p>What are children noticing?</p> <p>Use WS Assessment when marking.</p>	<p>Animal cards (resources)</p> <p>Coloured string of different lengths.</p> <p>Cubes</p> <p>Recording sheet if needed.</p>
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	Slide 106- Reflect on LOs for the lesson.	Recording sheet to support LA if needed	Self-reflection
<u>Week/Lesson 13</u> L.O- I can apply my learning about animals including humans.	Slide 107- Assessment. You can use assessment tests on plymouthsciencecic.co.uk Or ask children to draw a poster of everything they know about animals including humans from this unit. It may be worth revisiting the mind map and children could add their learning to this in a different colour. Slide 108- Concept map Children to add any notes and stick in books after unit title. Children share some of their ideas and add to the floor book. Provide labels for SEN children to add to the parts they know or language they have heard of.	Children to complete concept maps individually but can talk about their learning in small groups.	Assess children's knowledge. Mark tests to see how much they have retained.
<u>Week/Lesson 14</u>	TAPS Assessment Opportunity		

Spring Term			
SUBJECT: Science	Topic: Materials	Year: 1	TERM: This is a 12 week topic including assessment opportunities.
Pupils should be taught to: <ul style="list-style-type: none"> • I can distinguish between an object and the material from which it is made. • I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. • I can describe the simple properties of a variety of everyday materials. • I can compare and group together a variety of everyday materials on the basis of their simple properties. 			
WS Objectives:			



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STRAND: Physics	Pupils should be taught to: <ul style="list-style-type: none"> • Asking simple questions and recognising that they can be answered in different ways • Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions. 				
	Key Indicators: Can label a picture/diagram of an object made from different materials. Can describe the properties of materials. Can sort materials using their properties. Can test evidence to answer a question.	Key Vocabulary Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through.			
Learning Objectives	Whole Class Teaching including key questions		Recording of outcomes (Differentiated where appropriate)	Assessment Opportunities	Resources
Pre-assessment opportunity (PP Slide 1) Choose the pre assessment that suits your class e.g. Concept cartoon (provided) Plickers Assessment (online quiz) Mind mapping, KWL chart, Knowledge retrieval quiz, sorting activity, matching activity, modelling activity. This should not be a whole lesson and should take no longer that 15 mins. Our recommendation is using the concept map on next slide.					
Week/Lesson 1 LO: I can distinguish between an object and the material from which it is made WS: I can identify and group using my observations.	Slide 3- Do children know what these materials are? Can they label them? Can they add some uses of them? Pre assessment opportunity. Children stick this in their books as pre assessment. This could be scribed for them. You could provide a word bank for children of needed. This could be done in small groups where adult scribes ideas and assesses children’s pre-understanding of the topic.		This can be done in small groups or independently	Note any children with exceptional knowledge or children who are struggling to participate.	Floor book (optional). Post it notes. Concept Map in resources Unit title page

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 <p>SE- I can identify materials and classify items.</p> 	<p>Slide 5- Share LO for the session. Use the Symbols for Working Scientifically and Scientific Enquiry on a learning display, to make these a focus.</p> <p>Slide 6- Add to floor books and add post it notes through the unit. One colour for what they know and another for what they want to find out. Children to add questions on post it notes. Display throughout the topic and put on 'what we know' section once answered. Links to science capital with adding in scientists and jobs.</p> <p>Slide 7- Share children the animation and the focus/problem of the session.</p> <p>Slide 8- Read to children. This puts the problem into context using Tim Peake.</p> <p>Slide 9- Place ALL materials in a table/floor all jumbled up. Teacher may want to make the glass one as an example using glass beads, bottles.</p> <p>Type of materials e.g.</p> <p>Metal- aluminium foil, nuts, bolts, screws, coins, wire, paper clips, metal bottle tops, keys etc</p> <p>Wood- wooden lolly sticks, skewers, cocktail sticks, pegs, twigs, tree bark, wooden spoons, small pieces of wood.</p> <p>Plastic- Plastic bags, cling film, bubble wrap, plastic cutlery, plastic packaging and bags, Lego or Duplo, bottle tops, pipe.</p> <p>Paper- writing paper, sugar paper, crepe paper, news paper, tissue paper, tracing paper, paper art straws, coloured sticky notes.</p> <p>Fabric- wood, fur, leather, suede, voile, netting, denim and cotton.</p> <p>Extension- can children find one item each for at least 2 other categories?</p> <p>Slide 10- Children to draw and label at least 2 things from the sorted debris. This can include items from around the classroom.</p>	<p>Whole class talk.</p> <p>This can be done as a whole class activity.</p> <p>Mixed ability groupings</p> <p>Individually. Some children may need support with recording.</p>	<p>Question children's decisions and challenge misconceptions.</p> <p>Use WS assessment in resources</p>	<p>Metal- aluminium foil, nuts, bolts, screws, coins, wire, paper clips, metal bottle tops, keys etc</p> <p>Wood- wooden lolly sticks, skewers, cocktail sticks, pegs, twigs, tree bark, wooden spoons, small pieces of wood.</p> <p>Plastic- Plastic bags, cling film, bubble wrap, plastic cutlery, plastic.</p> <p>Paper- writing paper, sugar paper, crepe paper, news paper, tissue paper, tracing paper, paper art straws, coloured sticky notes.</p> <p>Fabric- wood, fur, leather, suede, voile,</p>
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	<p>(Use sorting sheet from resources)</p> <p>Slide 11- Look at some of the items in each group, can children spot some similarities and differences. Jot down some of the words children use e.g. hard, brown, flexible, squishy, soft, dull, shiny, rough, smooth.</p> <p>Slide 12- Children reflect on the LO's using the unit title page.</p>	TTYP and share.	when marking.	netting, denim and cotton.
<p>Week/Lesson 2</p> <p>LO: I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock.</p> <p>WS: I can record my results in a table.</p>  <p>SE: I can identify and classify different materials.</p> 	<p>Slide 13- Mystery Bag. Teacher to do the first few items then allow children to be the teacher, feeling and describing the items. Place items in the bag such as teddy, hat, toy car, pine cone, nail, plastic bottle, wooden block etc. Can children guess within 8 clues. To extend, this can be done where children ask the questions and person with the bag can only answer yes or no.</p> <p>Slide 14- Share LO, WS and SE with children.</p> <p>Slide 15- Ask children, what are these objects made of? What would happen if the wooden spoon was made out of glass? Could it be made out of any other material e.g. metal? What happens if the metal keys were made out of fabric? What happens if the glass was made out of brick? Children to discuss these questions and suggest alternative materials.</p> <p>Slide 16- Ask children if they have any further questions or check to see if any of their questions have been answered.</p> <p>Slide 17 and 18- Which one is the odd one out? Ask children which one is the odd one out and why? They may suggest the bat as the other 2 are chairs or may suggest the purple chair as the others are made of wood.</p>	<p>Teacher to model then allow children to have a go.</p> <p>TTYP</p> <p>TTYP</p> <p>TTYP</p>	<p>Challenge any misconceptions.</p> <p>Can children apply to real life?</p>	<p>Unit cover page.</p> <p>PSTT WS and SE Symbols.</p>

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	<p>Slide 19- Show children the different categories. Think back to last lesson. What did we find that was made of metal? Write a list of the objects found. Repeat with the other 5 categories. What similarities and differences can we see with the items in each category e.g. metal= tough, shiny, smooth, hard (add words in a different colour) Fabric= soft, bendy, stretchy. Glass- Hard, see through, tough, breakable. Paper- you can bend it, light, flexible. Wood- hard, dull, rigid. Plastic- hard, squashable, see through.</p> <p>Slide 20- Children to watch this clip to reinforce objects made of multiple materials.</p> <p>Slide 21- Take children around the school, to see what materials they can spot around the school. You could use QR codes downloadable from PSTT website which you can stick to objects and when scanned with a QR scanner will tell the children what it is made of. Children to tally the different materials found around the school. Model completing the tally chart and crossing the tallies at 5.</p> <p>Slide 22- Lets reflect. Ask children the questions on the slide for children to reflect on the learning of the session.</p> <p>Slide 23- (Space link) If you were planning a trip into space what would you take with you and why? (Note this question can be changed to fit other topics) Children discuss the items they would take and discuss the suitability of them in space.</p> <p>Slide 24- Extension- Children can draw themselves in the space suit and complete the ID card. (This could be used for early morning work)</p> <p>Slide 25- Lesson reflection. Children use the smiley faces on the unit title page and tick the WS and SE covered.</p>	<p>Whole class sharing. Teacher/TA to scribe vocabulary.</p> <p>Children to work in small groups but have own recording sheet to mark the tallies.</p>	<p>This is the WS assessment-criteria found in resources.</p> <p>Children self-evaluation.</p>	<p>WS assessment and LO in resources.</p> <p>Space suit outline.</p> <p>Unit title page.</p>
<p><u>Week/Lesson 3</u></p>	<p>Slide 26- Ask children- what did we learn last lesson and children can recap. Now play materials bingo (in resources) Give a game card to pairs of children. (4 pictures on each card)</p>		<p>Note any misconceptions or children</p>	<p>Materials bingo.</p>



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<p>LO: I can describe the simple properties of a variety of everyday materials.</p> <p>WS: I can ask and answer questions to group materials.</p>  <p>SE: I can group and classify materials based on how they feel.</p> 	<p>Pick one of the calling cards e.g. say wooden bench. Children cross it off if they have it.</p> <p>Slide 27- Share LO, WS and SE for the session.</p> <p>Slide 28- Feely Walls. Teacher to collect a range of fabrics of varying texture and thickness and make a feely wall for the classroom display. Place 4 or 5 pieces of the same fabric from the wall into a feely box bag per group (this can be extended for more able children). From each sample cut 2 squares of the same fabric to make 2 identical sets. As well as getting a range of textures also chose some fabrics that feel similar to create a greater degree of challenge.</p> <p>Slide 29- Mystery bag. Give small groups of children their feely box/bag. Let children feel the fabrics and discuss what they can feel. After a few minutes ask if they can match the sample of fabric in the box/bag with the feely wall, without taking it out the box. Repeat with the next child in the group. To challenge children, you could add some sample which do not appear on the wall.</p> <p>Slide 30- Sit children in a circle on the carpet with sorting hoops and a sample of all of the materials. Ask children- How could we sort the materials based on how they feel? They do not have to be able to place all materials- explain the ones that do not fit the criteria stay outside. Try out some of the children's suggestions e.g. bumpy and smooth. Discuss which ones are the best categories and why (they sort the most materials). When selecting materials get children posing questions e.g. why would this material not find in this category? Children have a go at sorting materials using sorting hoops and different titles (Teacher/TA guided groups with more able working independently). EXT- children could draw/take photographs with ipads/tablets/cameras their categories, children write groups</p>	<p>Children to work in pairs to identify the material and item.</p> <p>Children describe the textures. If they are struggling with the vocabulary, provide them with the vocabulary mat.</p> <p>Mixed group.</p> <p>Whole class activity</p>	<p>who have not retained any knowledge.</p> <p>To challenge children you could add some sample which do not appear on the wall.</p> <p>Note the vocabulary</p>	<p>Range of fabric materials e.g. bubble wrap, Astro turf, felt, wool, cotton, fur, corrugated card etc.</p> <p>One set for feely wall and a set per group.</p> <p>Coins, paper clip.</p> <p>Sorting hoops.</p>
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	<p>on labels using the word mat (provided in resources). Use this for evidence in books for the group and floor book.</p> <p>Slide 31- Read that's not my book to the class (you can show read along on YouTube if you do not have the book).</p> <p>Slide 32- Cut out the rocket template to leave a hole (as in the snail picture) see resources. Children to take one of these each. Allow children to explore the school grounds and shout when they have found a material they want to use. They place their rocket on the material and describe the texture. Film the children saying- That's not my rocket, it is too bumpy. If a child finds a material similar to that of a space rocket e.g. metal pipe, plastic pipe and it looks like a space rocket. Provide them with the second template OR you could challenge 1 or 2 children with this template in the first place. Once you have recorded all children or taken pictures, you can put the clips or pictures together to make your own 'That's not my rocket' story book with the focus being on different materials and vocabulary.</p> <p>Slide 33- Reflect on the learning objectives of the sessions using the unit title page. Tick the working scientifically and scientific enquiry covered.</p>	<p>Children can do this individually or in pairs. Give a couple more able children the 'That's my rocket' page as they need to hunt for a material that looks like what a rocket could be made out of and describe its properties.</p>	<p>being used in the books.</p> <p>Note children who are using the scientific vocabulary to describe materials. Use WS assessment in resources.</p> <p>Children self-reflect.</p>	<p>Its not my book or You tube read along.</p> <p>Rocket template in resources.</p> <p>Unit title page.</p>
<p>Week/Lesson 4 LO: I can compare and group together a variety of everyday materials on the basis of their simple properties. WS: I can carry out a simple comparative test using my own ideas.</p>	<p>Slide 34- Share with children the 'That's not my rocket' book or clip. (This would have been prepared before the lesson)</p> <p>Slide 35- share LO, WS and SE from the session.</p> <p>Slide 36- Share fact- did you know that astronauts wear nappies! Ext-Share with children the You Tube Link on the screen Astronauts Wear Adult Diapers During Spacewalks - YouTube (Click on the nappy to play clip)</p>	<p>Recap on language used to describe materials.</p> <p>Ask children if they have any questions after watching the clip.</p>		<p>PowerPoint. That's not my book or recorded clips from last lesson.</p>




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 <p>SE: I can compare the suitability of materials using a comparative test.</p> 	<p>This explains why astronauts wear nappies and some other materials that are used on a space suit.</p> <p>Slide 37- Your task. Can you make the most absorbent nappy?</p> <p>Slide 38- Ask children, what does absorbent mean? Share the slide. Teacher demonstration with a sponge and plastic. Fill each beaker with the same amount of water, talk this through. Ask why would we need to put the same amount in each beaker (Just over half way is best) . Discuss the concept of fair, even though this is a comparative test. Each piece of material also needs to be approx. same size and length. Dip the first sample in the beaker and leave for one minute- pull out of the water and allow the sample to drip before removing. Squeeze out the liquid that the sample has recorded and measure or measure the liquid left in the beaker one the sample has been removed.</p> <p>Slide 39- Children to use the planning sheet (in resources) to plan their comparative test. Model using slide 40 (Next slide) Place a selection of materials on the table with labels to make it easy for children to copy. Children select 4/5 materials they would like to test. Children to copy the test that the teacher has modelled. You can display the slide 41 to remind children of the process.</p> <p>Slide 40- Children to copy the names of the 4 or 5 materials they want to test into the box on the left. Children then look at each material and tick the number they think will be the most absorbent. Children to draw a picture of their test (once they know which sample they will be testing e.g. draw a beaker with their material inside. Children are not expected to label but it is good if they can.</p> <p>Slide 41- Children to work in small groups and choose one person to test each sample. Making sure they keep each aspect the same.</p>	<p>Teacher demonstration. Pose questions throughout the demonstration and ask children for reasons why.</p> <p>Mixed ability groups and targeted groups.</p> <p>You can extend more able children by asking them to test multiple materials based on their results.</p>	<p>Note any misconceptions.</p> <p>Question children about their resources and note their accuracy in using resources. Praise for correct sci language used.</p>	<p>Sponge and plastic strip (same size) 2 beakers, water and a timer.</p> <p>Planning sheet.</p> <p>Selection of materials absorbent and not absorbent.</p>
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	<p>Children to write their results on a whiteboard. EXT- to test multiple materials.</p> <p>Slide 42- What did you find out? Children to feedback results. Was there anything that surprised them?</p> <p>Slide 43- Share slide- what does waterproof mean? Share information about Charles Macintosh – Science Capital. (Instead of the Astro nappy or in addition to you could do an experiment designing a waterproof raincoat or shelter. Using Macintosh as a stimulus. PSTT Standing on the Shoulder of Giants resource is good for this.)</p> <p>Slide 44- This is an extension activity. Children could use this template and stick materials to the nappy to represent their results. This could be the WS focus which would be recording. (See ladders for assessment)</p> <p>Slide 45- Children to reflect on learning from the lesson using smiley faces from unit cover and tick the WS and SE covered.</p>		<p>Use WS assessment on the sheet.</p> <p>Children to self-reflect.</p>	<p>Unit cover</p>
<p><u>Week/Lesson 5</u></p> <p>LO: I can compare and group together a variety of everyday materials on the basis of their simple properties</p> <p>WS: I can make predictions based on the best materials to block out light and I can report and interpret my findings.</p>	<p>Slide 46- What have we learnt? Share the slide with children. Then ask which is the odd one out and why. Plastic bag, glass, sponge. Which one is the odd one out? Why? They may relate to the sponge being the only one being absorbent. They may say plastic and glass are strong. There are no wrong answers but challenge any misconceptions.</p> <p>Slide 47- Share LO, WS and SE for the lesson.</p> <p>Slide 48- Pass around a selection of materials e.g. brick, wood, metal, laminated pouch, mirror, greaseproof paper, black card, acetate, tissue paper, plastic etc (Examples of opaque and transparent materials) children to feel them and discuss the properties of the materials.</p>	<p>TTYP</p> <p>Whole class activity. Question children.</p>	<p>Note misconceptions.</p> <p>Challenge use of scientific vocabulary.</p>	<p>PowerPoint</p> <p>Selection of opaque and transparent materials.</p>



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 <p>SE: I can carry out a comparative test.</p> 	<p>Slide 49- NASA needs your help (This can be changed to match your topic) Read the problem to the children. Ask children who the astronaut on the page is (Tim Peake).</p> <p>Slide 50- Which material is the most opaque? Children to choose 4 to 5 pieces of material to test (provide children with opaque and transparent materials). Model using the rocket template with the window area cut out and children stick the materials on the back. Children shine the torch on the window to observe if the light shines through.</p> <p>Slide 51- WS Focus- Interpreting results. Children to use this writing frame to complete their interpretation of results.</p> <p>Slide 52- children to self-reflect using smiley faces on unit title page. Tick the WS and SE covered.</p>	<p>Mixed ability groups.</p> <p>Talk through the writing frame and ask children what they might write. Model write an example, Provide children with word bank if needed.</p>	<p>Question children about what they can see.</p> <p>Use WS assessment on the sheet.</p> <p>Children to self-reflect.</p>	<p>Rocket template-cut out window. Material samples opaque and transparent.</p>
<p><u>Week/Lesson 6</u></p> <p>LO: I can compare and group together a variety of everyday materials on the basis of their simple properties</p> <p>WS: I can evaluate my test and suggest improvements.</p> 	<p>Slide 53/54- Let's recap. Explore these questions with the children. Recap on the learning so far making reference to the previous tests.</p> <p>Slide 55- Share LO, WS and SE for the session.</p> <p>Slide 56- Ask children- which material is the most stretchy? Share slide. Present children with a range of materials- some that can be stretched and some that cannot e.g. blu-tac, plasticine, stone, elastic band, ruler.</p> <p>Slide 57- You may need to change these pictures depending on the materials you are going to test. Ask children 'how will we test which one is the most stretchy?' Nylon and lycra would also be good materials to test if you have any.</p>	<p>TTYP and share.</p> <p>TTYP</p>	<p>Challenge misconceptions and pose further questions.</p>	<p>Range of stretchy and not stretchy materials e.g. blutack, plasticine, ruler, stone, elastic band,</p>



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<p>SE: I can notice patterns in my results.</p> 	<p>Slide 58- How can we measure how stretchy something is? Ask for children’s ideas. Model the test with an elastic band. It is easier with an elastic band to hold one end with a pencil then stretch with another pencil. Children are measuring the stretch so from the elastic band being pulled tense to how far they can stretch without it breaking. They can measure using a ruler (standard measure) or cubes (non-standard measure). This is not the WS assessment for this lesson so does not need to be too specific. Children could draw a line on a page before the stretch and after the stretch and compare the lines (put in order). Children repeat with all the stretchy materials. Children to carry out their test.</p> <p>Slide 59- Working Scientifically Assessment. I can evaluate my test and look for patterns in my results. Talk to the children about their evaluation. Children to look at their results to see which was the stretchiest. Was this the same as their prediction? (Children circle on their sheet). We could improve our test by. Get children to reflect on the test, they could say finding more materials to test, measuring with cubes instead of a ruler, recording the start and finish on a piece of paper, use string to measure the stretch. There could be a range of things children may suggest when talking about their results.</p> <p>Slide 60- Which material is the most stretchy? Share with children information about space tethers and what they are made of. Why would they need stretchy material for this?</p> <p>Slide 61- Recap on LO, WS and SE using unit title</p> <p>Slide 62-65 Knowledge assessment tests. You can use the written tests in resources if you prefer.</p> <p>Slides 67-71 Answers.</p>	<p>Teacher demonstration</p> <p>Mixed ability groups.</p> <p>Talk and share. Children talk to their partner then complete their evaluation. Can use talk buttons for less able to help them remember or adult can scribe if needed.</p>	<p>Check children’s method of recording and question children. Provide mini demonstrations if needed.</p> <p>Use WS assessment in resources</p> <p>Children self-reflect.</p> <p>Use scores to help with summative assessment.</p>	<p>nylon, lycra etc</p> <p>Whiteboards/paper.</p> <p>Evaluation sheet.</p> <p>Evaluation sheet</p> <p>Whiteboards</p>
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<p><u>Week/Lesson 7</u></p> <p><u>LO: I can describe the simple properties of a variety of everyday materials.</u></p> <p><u>WS: I can predict which materials will be waterproof.</u></p> <div style="text-align: center; margin: 10px 0;">  </div> <p><u>SE- I can conduct a comparative test.</u></p> <div style="text-align: center; margin: 10px 0;">  </div>	<p>Slide 3- Share the Learning objectives, Working Scientifically and Scientific Enquiry for these 6 sessions.</p> <p>Slide 4- Share LO for the session. Use the Symbols on your working wall.</p> <p>Slide 5- Add to floor books and add post it notes through the unit. One colour for what they know and another for what they want to find out.</p> <p>Children to add questions on post it notes. Display throughout the topic and put on 'what we know' section once answered. Links to science capital with adding in scientists and jobs. (This may have been updated at the end of the last materials unit)</p> <p>Slide 6- Incy Wincy Spider- press play on the screen, children listen to the clip. Tell children, we need to help Incy Wincy Spider- how can we do this?</p> <p>Slide 7- Ask children for their suggestions. They may say to make a shelter. Ask- what sort of materials might we need so that Incy does not get wet? Waterproof. Those that do not let the water through.</p> <p>Slide 8- Lets sort these materials. Give children these materials. Ask them to look at the materials and predict whether they would be waterproof or not. Note- you can change these materials based on what resources you have available.</p> <p>Slide 9- I can make predictions based on if a material is waterproof or not. Children to tick or cross the prediction column based on how they have grouped the materials. Children to test their materials. Follow the instructions on the screen. (Children will need to hold or tape their material in place else it will fall into the beaker) After each material children tick on</p>	<p>This can be done in small groups or independently</p> <p>Whole class talk.</p> <p>TTYP and feedback</p> <p>Children to touch and explore the materials in order to make their prediction. Children sort into 2 piles (waterproof and not waterproof)</p> <p>Teacher to model completing the sheet.</p> <p>Children to work in small groups to complete their test.</p>	<p>Note any children with exceptional knowledge or children who are struggling to participate</p> <p>Can children relate to previous lessons on waterproof materials?</p> <p>How accurate are the predictions? Question</p>	<p>Floor book (optional). Post it notes. Concept Map in resources</p> <p>Unit title page</p> <p>Plastic, tissue, paper, metal, glass/mirror, cloth. (these materials can be changed based on what you have) Recording sheet- in resources. Beaker Pipette.</p>
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	<p>the test side of the sheet whether the material was waterproof or not.</p> <p>Slide 10- Recap learning. Point to each material. Can children share some properties. Is the material waterproof? How do you know? Can children suggest more properties for each material?</p> <p>Slide 11- Children reflect on the LO, WS and SE using the unit title page.</p>	<p>TTYP and feedback.</p> <p>Children self-reflect.</p>	<p>children on their choices.</p> <p>Use WS assessment to assess learning.</p>	<p>Unit title page.</p>
<p><u>Week/Lesson 8</u> <u>L.O: I can compare and group together a variety of everyday materials on the basis of their simple properties.</u></p> <p><u>WS: I can evaluate my shelter.</u></p>  <p><u>SE: I can identify and classify different materials.</u></p> 	<p>Slide 12- Mystery Bag. Teacher to do the first few items then allow children to be the teacher, feeling and describing the items. Place items in the bag such as teddy, hat, toy car, pine cone, nail, plastic bottle, wooden block etc. Can children guess within 8 clues. To extend, this can be done where children ask the questions and person with the bag can only answer yes or no.</p> <p>Slide 13- Share LO, WS and SE with the children.</p> <p>Slide 14- Lets recap. What did we learn last lesson? What does waterproof mean? Can you name some waterproof materials? Click on the link to play the short materials clip. How to identify materials - BBC Bitesize</p> <p>Slide 15- Lets think about the properties of these. Fabric= soft, bendy, stretchy. Glass- Hard, see through, tough, breakable. Paper- you can bend it, light, flexible. Wood- hard, dull, rigid. Plastic- hard, squashable, see through.</p> <p>Slide 16- I can create a waterproof shelter for Incy Wincy Spider. What material will you use for the roof? What material will you use for the legs? How might you join the materials together?</p>	<p>Teacher to model then allow children to have a go.</p> <p>TTYP and feedback.</p>	<p>Challenge any misconceptions.</p> <p>Do children have any questions about the clip or previous learning?</p> <p>Note any children who struggle with this slide as it is a recap slide.</p>	<p>Unit cover page.</p> <p>Plastic, metal, paper, card (range of waterproof /not waterproof</p>



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	<p>Children to think about these questions. Children should say something waterproof for the roof, something strong for the legs and something sticky to join together such as glue or cello tape. Provide a range of materials for children to choose from- make sure you also include unsuitable materials so children have to identify the best materials for the job.</p> <p>Slide 17- Shelters- share with children some different designs to give them inspiration. What shape will they make it? Think about the shape of your shelter and the materials of each part. Design your shelter on your sheet.</p> <p>Slide 18- Children then design their shelter, they can use the vocab bank on the screen to help label their shelters- you may need to add or remove words depending on the materials you are using. Children do not need to complete the evaluation yet. This will be after the test or next lesson if you do not have time.</p> <p>Slide 19- Now test your shelter. Now spray your shelter with water. Is Incy still dry?</p> <p>Slide 20- I can evaluate my shelter. Children to use the STEM sentences to support this. Children complete the bottom of their worksheet.</p> <p>Slide 21- Recap the LO, WS and SE for the lesson, children to evaluate using the unit title page.</p>	<p>Teacher to model drawing and labelling the shelter with materials they will use.</p> <p>Talk about the evaluation as a class and model before children complete theirs.</p> <p>Children self-reflect.</p>	<p>Question children's material choices and design.</p> <p>Use WS assessment when marking.</p>	<p>materials), bubble wrap, cellophane, lollypop sticks, straws, pipe cleaners, plastic spiders, wooden skewers.</p> <p>Water sprayer.</p>
<p><u>Week/Lesson 9</u></p> <p><u>LO: I can describe the simple properties of a variety of everyday materials.</u></p>	<p>Slide 22- Which is the odd one out? Children will come up with a range of reasons and explanations. The odd one out is the paper as it is not waterproof. (plastic, glass, paper)</p> <p>Slide 23- Share LO, WS and SE for the lesson.</p> <p>Slide 24- Floating and sinking. Some materials float and some sink.</p>	<p>TTYP and feedback</p>	<p>Are children applying their learning?</p>	<p>Tank of water,</p>



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<p><u>WS: I can test different materials.</u></p>  <p><u>SE: I can set up a comparable test.</u></p> 	<p>Get a tank of water. Hold up a satsuma. Ask children if it will float or sink. Now put the orange in the water, it floats! Now peel off the skin and do it again- it will sink. Invite children to look at the skin- they should notice little air pockets. Now place the skin in the water- it floats.</p> <p>Slide 25- Look at these materials, will they sink or float? Slide 26- Can you test them? How might you test if these materials will sink or float? Children should say they will put each item in the water one at a time. Children to predict then record their results on their sheet. (In resources) Slide 27- Using recording sheet in resources. Make your prediction first. Do you think it will float or sink? Now test the material. Does it float or sink?</p> <p>Children to test each material.</p> <p>Slide 28- Children to recap on the LO, WS and SE for the lesson using the unit title page.</p>	<p>Teacher demonstration.</p> <p>TTYP and feedback.</p> <p>Children to conduct their test in small groups.</p> <p>Children self-assess.</p>	<p>What do you notice?</p> <p>Ask children why?</p> <p>Use working scientifically assessment to assess learning.</p>	<p>Satsuma.</p> <p>Cork, coins, feathers, sponges, spoons, screws, leaves and stones (these items can be changed)</p> <p>Recording sheet in resources.</p>
<p><u>Week/Lesson 10</u></p> <p><u>LO: I can compare and group together a variety of everyday materials on the basis of their simple properties.</u></p> <p><u>WS: I can explain my results.</u></p> 	<p>Slide 29- Recap floating and sinking. Play clip on screen.</p> <p>Slide 30- Share the LO, WS and SE for the lesson.</p> <p>Slide 31- Let's apply our learning about floating and sinking. Show children a ball of plasticine. Ask them to predict whether it will float or sink. Then place in the water. (It will sink). Ask children what they think will happen if you change the shape? Make the plasticine into a boat shape and carefully place in the water. (It will float) Allow children to experiment with this- you can use tin foil.</p>	<p>Children to watch and pose questions.</p> <p>Children to practice making boat shapes to make their shape float.</p>	<p>Identify any misconceptions.</p> <p>Challenge children's choice of</p>	<p>Tank of water, plasticine.</p> <p>You will need one for each table.</p> <p>plasticine, tin foil,</p>


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<p><u>SE: I observe what happens to the materials over a period of time.</u></p> 	<p>Slide 32- Can you make a boat that will float and hold a character? (Lego characters work well for this). Tell children to think about the shape of their boat and the materials that they are making their boat from. Provide a range of materials including plasticine, tin foil, lolly sticks, corks, feathers, paper, card, glue. Children to apply their knowledge when making their boat.</p> <p>Slide 33- children to test their boats with the characters on/in. Ask why do you think it floated?</p> <p>Slide 34- I can interpret my results. Children use the STEM sentences to support their scientific explanation. (WS Assessment piece)</p> <p>Slide 35- Children to reflect on LO, WS and SE for the session. Use unit title page.</p>	<p>Children to make their own boat using the materials of their choice.</p> <p>Teacher to model first, children to write explanation on worksheet provided.</p>	<p>materials by asking them to describe the properties.</p> <p>Use WS assessments.</p> <p>Children to self-reflect.</p>	<p>lolly sticks, corks, feathers, paper, card, glue</p> <p>Worksheet in resources.</p>
<p><u>Week/Lesson 11</u></p> <p><u>L.O: I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock.</u></p> <p><u>WS: I can use a sorting diagram to classify materials.</u></p>  <p><u>SE: I can notice patterns in my results.</u></p>	<p>Slide 36- lets recap. Will these items float or sink? Can you identify the objects and explain the properties of these materials?</p> <p>Slide 37- Share LO, WS and SE with the children for the lesson.</p> <p>Slide 38- Magnets. Explain to children that magnets come in all shapes and sizes. Children only need to understand at this level that some materials are attracted to the magnet and some are not.</p> <p>Slide 39- Look at these materials. Which of these materials do you think will be magnetic? Children to make a prediction. Hands up for magnetic and down for not magnetic. You can change the items depending on what materials you have available at school- add items such as pencil sharpener, peg (2 materials) for MA children.</p>	<p>Children to talk to their partner and offer suggestions.</p> <p>TTYP and feedback. Add composite materials to challenge more able children.</p>	<p>Target questions at children based on your ongoing assessments.</p>	<p>Range of magnetic</p>

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	<p>Slide 40- Play Which materials are magnetic? - BBC Bitesize</p> <p>Slide 41- Can you sort the materials into magnetic and non-magnetic? Provide children with sorting hoops. Challenge more able children with objects part magnetic and magnetic so would fit into two categories. Children to record on their worksheet (in resources) can be drawn or written.</p> <p>Children to feedback their results.</p> <p>Slide 42- How many magnetic items can you find in the classroom? You have 3 minutes to find as many magnetic items as possible. Use a magnet to check (Children do not need to bring the items back to the carpet, they just need to feedback)</p> <p>Slide 43- Children to reflect on the lesson using the unit title page. Colour the faces and tick the WS and SE covered.</p>	<p>Children to sort the materials in small groups.</p> <p>Children to apply their knowledge by looking for magnetic materials. Watch the children's method- do they just look for metal items or are they just testing everything?</p>	<p>Ask children if they have any questions about the clip?</p> <p>Do they understand magnetic and not magnetic?</p> <p>Use WS assessment.</p>	<p>and non-magnetic materials e.g. coke can, paperclip, rubber duck, tin foil, elastic band, nails, fork, wooden spoon. (You can change these materials) Magnets.</p>
<p><u>Week/Lesson 12</u></p> <p><u>L.O: I can distinguish between an object and the material from which it is made.</u></p> <p><u>WS: I can ask questions to identify materials.</u></p> 	<p>Slide 44- Lesson recap- magnetic or not magnetic? Point to each item. Children put hand up for magnetic and down for not magnetic.</p> <p>Slide 45- Share the LO, WS and SE for the lesson.</p> <p>Slide 46- Material game. Give each child a card (from resources). Children must keep the card secret. Their material will be on the screen. Walk around the room until you meet another child. Take it in turns asking some of the questions- about properties of the materials (examples on the slide) Can they guess the object? If they do they swap cards.</p>	<p>Whole class discussion.</p> <p>Whole class participation.</p>	<p>Challenge misconceptions and note children who do not have this concept.</p>	<p>Materials cards (resources)</p>

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<p><u>SE: I can use my subject knowledge to sort a range of objects.</u></p> 	<p>All of the cards are on the screen so they can ask directed questions.</p> <p>Slide 47- Provide a range of materials, can children come up with a range of ways to sort them based on their properties? Take pictures of children’s sorting criteria for use in floor books, books or working wall. Assess children’s ability to sort materials using all of their knowledge of materials.</p> <p>Slide 48-50 Final knowledge assessment Slide 51- 55- Answers Slide 57- Children to revisit concept map and add any new learning. Slide 58- Children to complete their concept maps. Slide 59- Review LO, WS and SE and children to complete unit title pages.</p>	<p>Group participation.</p> <p>Children can complete individually, in pairs or as a class.</p>	<p>Teacher/TA to take pictures and assess learning from the unit- can they apply all concepts?</p>	<p>Range of materials. Sorting hoops Whiteboards. Camera</p>
<p><u>Week/Lesson 13</u></p>	<p>TAPS Assessment Opportunity</p>			



Summer Term

<p>SUBJECT: Science</p>	<p>Topic: Plants</p>		<p>Year: 1</p>	<p>TERM: Summer 1 - This is a 6-week topic with assessment opportunities.</p>
	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • To identify and describe the basic structure of a variety of common flowering plants including trees. • To identify and name a variety of common wild and garden plants including deciduous and evergreen trees. 			
	<p>WS Objectives:</p>			

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STRAND: Biology	Pupils should be taught to: <ul style="list-style-type: none"> • Asking simple questions and recognising that they can be answered in different ways • Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions. 			
	Key Indicators: <ul style="list-style-type: none"> • Can name trees and other plants they see regularly. • Can describe key features of the trees and plants e.g. shapes of leaves/colour of the flower/blossom. • Can point out trees which lost their leaves and those who keep them all year. • Can point to and name parts of a plant. • Can use simple charts to sort. Can use photos to talk about how plants change. 	Key Vocabulary Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud. Names of trees in local area, garden and wild flowering plants.		
Learning Objectives	Whole Class Teaching including key questions	Recording of outcomes (Differentiated where appropriate)	Assessment Opportunities	Resources
Pre-assessment opportunity (PP Slide 2) Choose the pre assessment that suits your class e.g. Concept cartoon (provided) Plickers Assessment (online quiz) Mind mapping, KWL chart, Knowledge retrieval quiz, sorting activity, matching activity, modelling activity. This should not be a whole lesson and should take no longer that 15 mins. Our recommendation is using the concept map on next slide.				
Week/Lesson 1 LO: To identify and describe the basic structure of a variety of common flowering plants including trees.	Slide 3- Share the Learning Objective (LO), Working Scientifically (WS) and Scientific Enquiry (SE) for the unit. Introduce children to the symbols. Use the large symbols from the PSTT Website to display in the classroom. Slide 4- Share Lesson objectives, WS and SE for the lesson. For further subject knowledge you can follow the module on Reach Out CPD. (Link on slide)			PowerPoint PSTT symbols.



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<p>WS: I can make careful observations.</p>  <p>SE: I can find out how long different fruits and vegetables take to grow.</p> 	<p>Slide 5- Children to add questions on post it notes. Display throughout the topic and put on 'what we know' section once answered. This can be put in floor books. Links to science capital with adding in scientists and jobs.</p> <p>Slide 6- Concept Map. Provide children with their own copy (or group copy if preferred) Children to add any notes and stick in books after unit title. Children share some of their ideas and add to the floor book. Provide labels for SEN children to add to the parts they know or language they have heard of.</p> <p>Slide 7- Tiny Seed: Read Tiny Seed by Eric Carle or listen to the book in this slide.</p> <p>Slide 8- Show children the slide with fruits on. Do the children know the names of these fruits? What sort of plants do they grow on? How long do they take to grow? Where do they grow? You could invite someone who owns an allotment to come in or a gardener.</p> <p>Slide 9-10- Do children know the name of the fruits and where the grow? TTYP and share. Answers are on the slide.</p> <p>Ask the children to touch and smell the fruits and veg- Look closely with magnifying glasses, what can they see e.g. bumps, hairs, skin, dots. Children to draw a picture of their chosen fruit, looking carefully with a magnifying glass to what they can see, not what they think they can see.</p>	<p>Teacher to question children and give children some prompts as to what they might like to find out.</p> <p>Listen to children and tell them to write down things they can see or what link. Can provide labels for SEND children for support.</p> <p>TTYP</p>	<p>Challenge any misconceptions.</p> <p>If working in a group, note down children's ideas and level of knowledge of the topic.</p> <p>Note children who are struggling to participate and make a targeted group with adult support.</p>	<p>Post it notes</p> <p>Concept map-resources.</p> <p>Large paper/pens.</p> <p>Range of fruit/veg, magnifying glasses.</p>
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	<p>Slide 11- I can observe carefully. Ask children to look closely at the picture? What can they see? Encourage descriptive language. Click on the link for the Explorify activity. Children revising their answers. Talk about the image when not looking at the zoomed in version, it is harder to describe the detail.</p> <p>Slide 12- What do these fruits look like on the inside? Children to choose another piece of fruit Talk to children about carefully looking. Model choosing one of the fruits/veg to draw on half a page (fold it). Draw it large and add detail. Children to then choose another piece of fruit or veg and draw it on half of the page.</p> <p>Slide 13- How do we grow potatoes? TTYP Show children a chitted potato. (See instructions on planting in resources) Ask children what they think the bits growing out of the potato are. It's a different type of seed. Now plant the potato with the children- see instructions.</p> <p>Slide 14- Let's apply our learning. Explain to children that all of the seeds are different. They look different and they can be different sizes. How do they think the plant grows from a seed?</p> <p>Slide 15- What have we learnt? Children to reflect on the LO using the unit title pages- colour the faces and tick the WS and SE covered.</p>	<p>TTyp and feedback.</p> <p>Individually.</p> <p>TTYP</p>	<p>Assessment- Can children use their observation skills to describe the fruits carefully. Use WS assessment in resources.</p> <p>Children's self evaluation.</p>	<p>Lesson 1 sheet. LO and WS Assessment.</p>
<p><u>Week/Lesson 2</u></p> <p>LO: To identify and describe the basic structure of a variety of common flowering plants including trees.</p>	<p>Slide 16- Lesson 2 let's recap previous learning. What did we learn last lesson? Children talk to their partner. What do we know about seeds? There are seeds in fruit and vegetables. We know where they grow. Seeds come in different shapes and sizes.</p>	<p>TTYP and share with the class.</p>		



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<p>WS: I can keep a diary to explain how a seed grows.</p>  <p>SE: I can observe seed growth over time.</p> 	<p>Slide 17- Children to add questions on post it notes. Display throughout the topic and put on 'what we know' section once answered. (Add any post it notes to the page in the floor book) Links to science capital with adding in scientists and jobs.</p> <p>Slide 18- Share LOs for the lesson with children.</p> <p>Slide 19- Share Jack and the Beanstalk story (You may use a book if you have it) or play the audio on the screen.</p> <p>Slide 20- How do plants grow from seeds? Give children the picture cards as above. Can children look closely and order from seed to plant. Why have they ordered the cards as they have?</p> <p>Slide 21- Were children correct? Go through the process. Starts as a seed, the seed starts to take in water when the conditions are right. As the seed takes in water the seed coat swells and splits. A tiny root grows downwards and a shoot begins to grow upwards. Foliage leaves start to grow at the end of the shoot. The leaves grow bigger and the stem grows thicker and stronger. The roots get bigger to support the plant. The leaves take the sun's energy to grow and develop flowers.</p> <p>Slide 22- Plant drama.</p> <ol style="list-style-type: none"> 1. Children are seeds- curl up in a ball. 2. Seed starts to grow a root- put out foot across the floor. (Roots anchor the plant into the ground and soak up the water and nutrients from soil) 3. The shoot starts to grow- place out hand. (This will become the stem, a transport system for the water and nutrients to get to the rest of the plant) 	<p>Children to write on post it notes or teacher/TA could scribe.</p> <p>Children to listen and think about what happens to the seed in the story.</p> <p>Individually, in pairs or in small groups depending on the ability of the class.</p> <p>Children listen to teachers explanation and perform the actions.</p>	<p>Challenge any misconceptions</p> <p>Question children throughout the story and relate to their knowledge about seed growth.</p> <p>Question children on their choices for how they have ordered the cards.</p>	<p>Post it notes</p> <p>Jack and the Beanstalk book (optional) read along included.</p> <p>Seed growth sheet.</p> <p>Large space.</p>
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	<p>4. The leaves get bigger and roots larger- stretch out fingers and start to stand up. (The leaves use light, air and water to make food for the plant)</p> <p>5. Plants start growing more leaves- they get bigger and stem gets thicker and stronger- stand up straight with arms up and fingers outstretched.</p> <p>6. The flower is the part of the plant that blossoms, fruit can grow from flowers. Repeat a few times, then ask children to grow without teacher commentary.</p> <p>Slide 23- What do plants need to grow? Click the link on the PP to BBC bitesize- this will give children visuals on what a plant needs to grow.</p> <p>Slide 24- Children to plant one seed using damp cotton wool and the other in soil. Soil- fill to top of container, place thumb 2cm into soil, place in seed and cover. Cotton- place a piece of cotton, then seed near the edge of the cup so children can see the germination and cover with damp cotton wool. Children can use the one in the cotton wool to make observations as this plant will not be as healthy as the other as it is not drawing nutrients from the soil. Once germinated and growing, you may wish to transfer to soil. These will need to be kept indoors until May to sow outside. Alternatively, you could plant cress. Share this link to show the growth of the runner bean Runner bean plants growing - KS1 Science - BBC Bitesize Share the Growing bean time lapse with children to show how their bean should grow. Slide 25- I can keep a bean diary to explain how a seed grows. Day 1- planting day, children draw their plant in their diary. Label the seed.</p>	<p>Ask children what they can remember. Now show the pictures and ask children to repeat.</p> <p>Children to complete this task in small groups.</p>	<p>Can children remember each step?</p> <p>Question each step of the process e.g. why does the cotton wool need to be damp? What does the seed need to grow?</p>	<p>Cotton wool, water, soil, runner bean seeds (other seeds could be used e.g. cress)</p>
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	<p>Children record when there has been a slight change in their bean e.g. when they see the bean has split- record the day and draw what they see. Label (with support) Children to draw the picture where the red obs over time symbol is and write what is happening in the box below. You may need to print in A3 if children need more space to write. TAs could scribe children's ideas if writing is a boundary. Slide 26- What have we learnt?</p> <p>Children to use the pictures to aid their explanation of today's learning.</p> <p>Growth of a seed Conditions for growth.</p> <p>Slide 27- Children to reflect on the LO's for the lesson, they can colour the faces and tick the WS and SE covered in the session by spotting the symbols.</p>	<p>Children to record individually Adult can scribe or use QR codes to record children's ideas.</p> <p>TTYP and share</p>	<p>Use WS assessment when marking the lesson.</p> <p>Children to self-reflect.</p>	<p>Been diary sheet in resources.</p>
<p><u>Week/Lesson 3</u></p> <p>LO: To identify and describe the basic structure of a variety of common flowering plants including trees.</p> <p>WS: I can carefully draw and label a plant.</p>  <p>SE: I can identify plants in the environment.</p> 	<p>Slide 28- Lesson 2 recap.</p> <p>Ask children if they can identify the parts of the plant. Children to talk to their partner then come out to the front. Can they remember the function of each part?</p> <p>Slide 29 - Share LO for the lesson.</p> <p>Slide 30- We are going on a plant hunt. Use the ID sheets laminated. How many of these plants can they find outside?</p> <p>Also take out iPads with Plant ID app to identify any plants that you are unsure of. Teachers to note down other plants in the school. Children to take out magnifying glasses. You could get children to draw their favourite plant outside or go to next slide where they are drawing a Pansy and labelling.</p> <p>Slide 31- I can identify parts of a plant. Recap the task</p> <ul style="list-style-type: none"> - Children need to look carefully at their plant (relate back to obs skills) 	<p>Whole class participation.</p> <p>Teacher to model expectations.</p> <p>Children can draw on paper and stick in books or draw directly into</p>	<p>Identify any misconceptions.</p> <p>Use WS criteria when marking. Can children label</p>	<p>Plant ID sheets Magnifying glasses.</p> <p>LO and WS assessmen</p>


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	<p>- Can you identify the different parts as not all plants look the same?</p> <p>- Carefully draw and label your plant.</p> <p>Slide 32- Children reflect on the Los for the lesson using the unit title pages.</p>	<p>books. LO can be stuck in with WS criteria.</p>	<p>the plant correctly?</p> <p>Self-reflection.</p>	<p>t in resources</p>
<p>Week/Lesson 4</p> <p>LO: To identify and describe the basic structure of a variety of common flowering plants including trees.</p> <p>WS: I can label parts of a plant.</p>  <p>SE: I can identify and classify parts of the plant.</p> 	<p>Slide 33- Lesson 3 lets recap.</p> <p>Can you remember the names of the plants?</p> <p>1. Poppy 2. Buttercup 3. Rose 4. Primrose 5. Pansy 6. Dandelion 7. Snowdrop 8. Dock 9. Stinging nettle 10. daisy 11. Cow Parsley 12. Shepherds purse. You can provide children with the ID sheets to support if needed.</p> <p>Slide 34- Share LO with children.</p> <p>Slide 35- Plant Bingo.</p> <p>Pick a calling card from a bag, describe the type of root or petal, children listen to the description and decide whether they have this on their card.</p> <p>Top row are types of roots Second row types of leaves Third row types of stems Fourth row different common plants- use names when calling.</p> <p>Give out laminated bingo cards, children to cross off when they have a type of root- this can be any when root is called, same with leaves, stem and petals only specifics are the common plant names.</p> <p>Slide 36- Parts of a plant.</p> <p>Check understanding of the different parts of the plant.</p> <p>Give children a pansy- one between two, children to dissect the plant by pulling the parts of the plant and classify on the plant diagram. Children to look closely at the different parts of the plant. Teacher/TA to spot any misconceptions, once children have sorted the parts of the flower, they can use junk modelling e.g. egg boxes, tissue paper, cardboard, pipe cleaners. Children can make their own flower and label with flower, stem, leaves, roots. Use these for</p>	<p>Children to identify different common plants. Did they find these plants last lesson?</p> <p>Children to work in pairs.</p> <p>Work in partners.</p> <p>Children can work individually, in pairs or</p>	<p>Correct children and re look at ID sheet if needed.</p> <p>Teacher/TA to question children and ask them to point to different parts for AfL.</p> <p>Use WS assessment</p>	<p>ID sheets (optional)</p> <p>Bingo cards and calling cards</p> <p>Pansy plants Magnifying glasses.</p>


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	<p>display. Take a picture of children’s labelling for books. WS assessment is in resources.</p> <p>Slide 37- Examples of junk modelling flowers Remind children to label each part as this is the assessment of the activity. Children to share their flowers</p> <p>Slide 38- Recap on learning for the session. Use unit title pages.</p>	<p>in groups depending on the abilities of the class.</p>	<p>when marking and also Afl notes from the session.</p> <p>Children to self-reflect.</p>	<p>Junk modelling materials.</p>
<p><u>Week/Lesson 5</u></p> <p>LO: To identify and name a variety of common wild and garden plants including deciduous and evergreen trees.</p> <p>WS: I can ask yes and no questions to begin to classify.</p>  <p>SE: I can identify and classify different leaves from deciduous and evergreen trees.</p> 	<p>Slide 39- Lets recap our learning. Recap parts of a plant EXT- Can they remember the function of each part?</p> <p>Slide 40- Share lesson objectives with children.</p> <p>Slide 41- Read Leaf Man or listen to the read along in the slide. Click on the link.</p> <p>Slide 42- We’re going on a leaf walk. Tell children that they will notice some trees with leaves (Evergreen) and some without leaves (deciduous). Children take leaf ID sheet with them and when they see either tree, they will look at their leaves and try and identify the name of the plant. Teacher to take Plant ID App to check any not on the sheet. Children to collect a sample of leaves as they go. How many different trees can they find?</p> <p>Slide 43- Leaf bingo: Children to look at their pile of leaves in small groups to see if they can find other ways to classify their leaves. In Groups, children stick one example of each leaf found to a large A3 sheet and use the ID sheet again to identify the tree it came from. (Follow steps on slide 1- look at leaves, 2- do they have one leaf from the bingo sheet? 3- If children have any missing can they find one?)</p>	<p>TTYP and share.</p> <p>Children to work in small groups to identify leaves.</p>	<p>Identify any misconceptions.</p> <p>Support children using the ID cards.</p>	<p>Leaf man book (optional) can use read along included.</p> <p>Leaf ID sheet.</p> <p>Leaf Bingo sheet.</p>

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	<p>Slide 44- I can identify different deciduous and evergreen trees. In groups, children stick one example of each leaf found to a large A3 sheet and use the ID sheet again to identify the tree it came from. You can provide sticky labels to support with writing. So they are matching the leaf with the label.</p> <p>Slide 45- I can classify leaves into groups. Different types of leaves - BBC Teach this could be shown to children if required.</p> <p>How do children think these leaves have been grouped- rounded leaves/spikey leaves?</p> <p>Children to have a go at classifying their leaves into groups. Children can use sorting hoops to do this. They can choose how many groups they need.</p> <p>Slide 46- Children to recap on the Los for the session- use unit title page</p>	<p>Children can draw or stick the leaves on a piece of paper, or you can take a picture for books/floor books.</p>	<p>Use WS assessment.</p> <p>Children self-reflect.</p>	<p>Leaves from last session or a selection of new ones- this can be pictures if needed.</p> <p>WS assessment and Lo in resources</p>
<p><u>Week/Lesson 6</u></p> <p>LO: To identify and name a variety of common wild and garden plants including deciduous and evergreen trees.</p> <p>WS: I can make simple predictions</p>  <p>SE: I can observe types of leaves over time.</p>	<p>Slide 47- Lets recap our learning so far. I can identify different deciduous and evergreen leaves. Can children remember the names of the leaves?</p> <p>Slide 48- Meadow flowers- which ones can children identify Daisy, dandelion, poppy, cornflower, dog rose,</p> <p>Slide 49- Share LO with children.</p> <p>Slide 50- Which picture is the odd one out? This will make children curious. There are no wrong answers but encourage children to give reasons and explain.</p> <p>Slide 51- Why do leaves fall off trees? 1- sycamore 2- pine needle 3- holly leaf Children will be making observations over time by soaking 3 leaves by soaking 3 paper towels in a tray of water and make observations</p>	<p>TTYP and share.</p> <p>Children to look closely to see which common flowers they can identify.</p> <p>TTYP and share ideas.</p> <p>Teacher demo and children to do the same.</p>	<p>Identify misconceptions.</p> <p>Use WS assessment</p>	<p>Picture of meadow slide 55 (optional)</p> <p>Paper towels,</p>

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	<p>over time of how quickly they dry out when hung outside on a washing line 'tree branch'.</p> <p>1- open one paper towel out to represent a broad deciduous leaf such as sycamore.</p> <p>2- roll another wet paper towel up tightly to represent an evergreen needle, and fold the third wet paper towel in half between wax paper and secure with a giant paper clip to represent the waxy surface of an evergreen holly leaf.</p> <p>Slide 52- Why do leaves fall off trees? Let's predict what might happen? Children to talk to their partner, which leaf will fall off first and why?</p> <p>Slide 53- Why do leaves fall off trees? Children to talk to their partner, which leaf will fall off first and why? WS assessment and recording sheet in resources. Children to watch what happens over time to see which one falls first. You can check children's predictions to see if they predicted correctly- did anything surprise the children?</p> <p>Slide 54- Read slide to children to describe the difference between deciduous and evergreen.</p> <p>Slide 55- Share Los with children- children complete the unit title page.</p> <p>Slide 56- Final Quiz. You may use the Plymouth Science Tests instead online Best practice is AFL throughout the unit to gather an accurate assessment.</p> <p>Slide 57- Answers from the assessment questions.</p>	<p>TTYP and share</p> <p>Teachers to model the recording sheet and share vocabulary children can use.</p>	<p>on prediction sheet.</p> <p>Self-reflection.</p> <p>Record quiz scores in children's books.</p>	<p>water, waxy paper (greaseproof paper), paperclip</p> <p>Prediction sheet.</p>
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<u>Week/Lesson 7</u>	TAPS Assessment Opportunity			
SUBJECT: Science	Topic: Seasonal Changes (This is best completed over the year but there are options to do in one block also)		Year: 1	TERM: Summer 2 - This is a 7 week topic with assessment opportunities.
	Pupils should be taught to: <ul style="list-style-type: none"> • I can observe changes across four seasons. • I can observe and describe weather associated with the seasons and how day length varies. 			
STRAND: Physics	WS Objectives: Pupils should be taught to: <ul style="list-style-type: none"> • Asking simple questions and recognising that they can be answered in different ways • Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions. 			
	Key Indicators: Can name four seasons and identify when in the year they occur. Can observe and describe weather in different seasons. Can describe days being longer in summer and shorter in winter. Present data in tables charts and compare seasons.	Key Vocabulary Weather (sunny, rainy, windy, snowy etc) Seasons (winter, summer, spring, autumn) sun, sunrise, sunset, Day length		
Learning Objectives	Whole Class Teaching including key questions	Recording of outcomes (Differentiated where appropriate)	Assessment Opportunities	Resources
Pre-assessment opportunity (PP Slide 2)				

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Choose the pre assessment that suits your class e.g. Concept cartoon (provided) Plickers Assessment (online quiz) Mind mapping, KWL chart, Knowledge retrieval quiz, sorting activity, matching activity, modelling activity. This should not be a whole lesson and should take no longer than 15 mins. Our recommendation is using the concept map on next slide.

<p><u>Week/Lesson 1</u></p> <p>LO: I can observe the changes across four seasons.</p> <p>WS: I notice similarities and differences within the seasons.</p>  <p>SE- I can identify the four seasons.</p> 	<p>Slide 3- Ask children what they know about seasonal changes either individually or as a group. Scribe children's answers and vocabulary. Do they children know what the pictures on the concept map represent?</p> <p>Slide 4- Ask children what they already know about seasonal changes and weather and scribe any questions the children want to find out.</p> <p>Slide 5- Share Learning Objectives for the topic and the range of Working scientifically and scientific enquiry which will be covered.</p> <p>Slide 6- share the LO, WS and SE for the lesson.</p> <p>Slide 7- Children to discuss the pictures in small groups, then ask them to share what they have spotted. Teacher/TA to scribe ideas on post it notes and add to pictures in floor book/display. Explain to children that these pictures represent 'typical' seasons. Explain the 4 seasons: Summer, autumn, winter and spring. (Print this slide to place on children's tables).</p> <p>Slide 8- Read this book to children or watch the read along. SNOW RABBIT, SPRING RABBIT, READ ALOUD BY MS. CECE - YouTube Or play the read along on the screen.</p> <p>Slide 9- Children to sort the items of clothes with the seasons, children may have different thoughts, this will make good discussion. Children to complete their cut and stick sheet sticking the clothes in the correct columns. Share as a class- show next slide.</p> <p>Slide 10- Share typical answers, did children have anything different? Why does our clothes change depending on the season? Children</p>	<p>This can be done in small groups or independently</p> <p>This can be done in small groups or kept together as a whole class activity.</p> <p>Whole class listening. Ask children to OBSERVE what is happening in each season.</p>	<p>Note any children with exceptional knowledge or children who are struggling to participate</p> <p>Question children's decisions and challenge misconceptions.</p> <p>Use WS assessment in</p>	<p>Floor book (optional). Post it notes. Concept Map in resources</p> <p>Unit title page</p> <p>Print slide 7 for tables.</p> <p>Lesson 1 resource.</p>
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	<p>may talk about weather and temperature. Also they may mention activities they may do in each season.</p> <p>Slide 11- There are 4 seasons. Reveal pictures. Can children say which season it is based on the pictures? Extend children by asking why and asking them to respond in full sentences.</p> <p>Slide 12- Recap on LO, SE and WS- children to revisit the unit title page and reflect using the faces and tick the WS and SE covered in the lesson. They may also recap on the vocabulary.</p>	<p>Children complete independently but can talk and discuss on their tables.</p>	<p>resources when marking.</p>	
<p><u>Week/Lesson 2</u> LO: I can observe the changes across four seasons. Today's focus= Autumn</p> <p>WS: I can predict what colours are hiding in my leaf.</p>  <p>SE: I can look for patterns with the colours found in different leaves.</p> 	<p>Slide 13- Let's recap- Children listen to the song and try and join in. Did children observe anything different in the song to add to their knowledge of seasons?</p> <p>Slide 14- Share LO, WS and SE with children.</p> <p>Slide 15- Ask children, what do you know about autumn? Take some suggestions. Now share pictures on the slide. Do they have any further ideas?</p> <p>SK- 1, leaves start to change colour- when there is less sunlight, deciduous trees stop producing chlorophyll, which they use to convert light into energy to grow. Chlorophyll is the pigment that gives leaves their green colour. When production slows down, the chlorophyll fades and yellow and red pigments are revealed.</p> <p>2- Migrating birds- many birds including nightingales, cuckoos, swifts and swallows fly south to warmer climates for winter</p> <p>3- Fruits for foraging- late Aug/Sept is prime time for blackberries. Badgers, foxes and small birds all feast on these fruits in autumn and they provide a valuable source of energy and nutrients.</p> <p>4- Falling seeds- many tree seeds ripen and fall to the ground- acorns, conkers and beech mast. Some trees rely on the wind to spread their seeds.</p>	<p>TTYP</p>	<p>Challenge any misconceptions.</p> <p>Challenge misconceptions and note any children who have exceptional or limited knowledge.</p>	



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	<p>5- Fungi- Damp weather provides ideal conditions for fungi to grow, so autumn is where many species thrive</p> <p>6- animals gather food in preparation for the coming winter. Animals with fur start to grow a thicker coat.</p> <p>Slide 16- Ask children if they have any further questions or check to see if any of their questions have been answered.</p> <p>Slide 17- Autumn 'falling into place' from Explorify. Click on the Explorify link on the slide- ask children to observe what is happening. Falling in to place – Explorify Click on the Explorify link to play a short clip showing the signs of Autumn.</p> <p>Slide 18- Why do leaves fall off trees? Ask children. Children would have covered this in the plants unit and conducted an experiment. Children may not know if you are teaching seasonal changes before plants. ANSWER- So that trees can survive the winter. During that process, the trees lose a lot of water- so much water that when winter arrives, the trees are no longer able to get enough water to replace it. They fall off when they are not doing their job anymore, using the sun to turn into food for the tree.</p> <p>Slide 19- Let's investigate. Why do leaves change colour? Follow the steps on the screen.</p> <p>1- Go outside in small groups to collect a different leaf for each person in the group. Teacher demonstration with spinach leaves also works really well. (Note- if you pick an evergreen leaf, you will see shades of green, if you have a deciduous you will see some yellow)</p> <p>2- Break the leaves into tiny pieces and put into a jar or beaker.</p> <p>3-Teacher/TA to add some surgical spirit to cover the leaves.</p>	<p>Whole class discussion.</p> <p>Children to watch and observe.</p> <p>TTYP and share</p> <p>Children to go outside in small groups, each person in the group to collect a different leaf if they can.</p>	<p>Can children use equipment safely? Ensure children are following H and S guidance.</p>	<p>WS assessment and LO in resources.</p> <p>Leaves from school ground or pre collected. Spinach, clear jars or beakers, surgical spirit. Spoons. Bowl</p>
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	<p>4- Using a spoon, mash the leaves into the surgical spirit- take care not to splash the liquid. They key is to mash the leaves thoroughly. NOTE- IF CHILDREN GET SURGICAL SPIRIT ON THEIR SKIN, RINSE UNDER COLD WATER IMMEDIATELY.</p> <p>5- Cover the jar/beaker with cling film. Place the jar into a small bowl of hot water. (Ensure children do not touch the hot water)</p> <p>6- Wait for 30-45 mins, stirring occasionally- the alcohol should be a very dark green- leave longer if needed)</p> <p>Whist children are waiting move to slide 21 Children to draw some dots of colour on filter paper with felt tip pens. Use a pipette and place a few drops of water on each dot. Wait and observe- what do children notice? Children will notice- some unexpected colours in the inks spread across the paper. It is important for children to know that these colours have been there all the time but we don't see them because they are hidden by the main colour of the pen.</p> <p>Slide 22- Children to PREDICT what colours are hiding in their leaf. Children to draw a picture of their leaf and colour it in with the colours they think they might find inside e.g. yellow/orange/red or a mixture. Children to use the STEM sentence to write under their leaf. Stick in LO and children to draw leaf and write sentence below. Stick WS assessment under that.</p> <p>Now go back to slide 20 (After 30-45 mins) Give children pre-cut strips of filter paper and place into the jar so it reaches the liquid (tape the top of the strip over the top of the jar. The liquid will travel up the filter paper and the colours will separate as the alcohol evaporates off the coffee filter. Leave this for about an hour for full effect. Children can come and observe later in the day or the next day. Take a picture for working walls or floor books. Note- The leaves we used turn to a beautiful yellow in autumn. Each leaf collected will give a different colour.</p>	<p>In pairs or small groups.</p> <p>Children to work in their groups and observe over time.</p> <p>Whole class discussion</p>	<p>This is the WS assessment- criteria found in resources.</p> <p>Note on planning if children have understood concepts.</p>	<p>Hot water Cling film.</p> <p>Lesson 2 resource.</p> <p>Unit title page.</p> <p>Filter paper.</p>
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	<p>Slide 23- so what is happening? Read the slide to the children. The main point they need to note is that there is less sunlight, they don't need to worry out chlorophyll (there for extra info and to stretch MA children)</p> <p>SK- As we know, Chlorophyll gives leaves their green colour and is so dominant it hides the other colours in the leaves. But in autumn, chlorophyll in the leaves breaks down allowing the other colours to finally shine through and show their beautiful reds, yellows, and oranges.</p> <p>Slide 24- Lets recap. Ask children the questions on the slides, can children look for patterns?</p> <p>Slide 25- Recap on LO, WS and SE- children to use unit title page to reflect on their learning.</p>		<p>Children self-evaluation.</p>	
<p><u>Week/Lesson 3</u></p> <p>LO: I can observe the changes across four seasons. Today's focus= Winter</p> <p>WS: I can explain what winter feels like.</p>  <p>SE: I can observe how crystals form over time.</p> 	<p>Slide 26- Recap- why do leaves change colour and why do some leaves fall off the trees? Children TTYP and feedback then share some answers.</p> <p>Slide 27- Share LO, WS and SE for the lesson.</p> <p>Slides 28 -click on the explorify image. This will take you to a zoomed in image, spend some time on each slide asking children to look closely and predict what they think it might be? Do their predictions change after any slides? Why?</p> <p>Slide 29- Ask children- have they ever seen or experienced snow? What did they feel? See? Gather words and statements from children (capture children's thoughts and put on post its around the picture, in floor books/display)</p> <p>Slide 29- How is snow formed? Read the slide to the children (EXT lesson- a comparative test about melting ice- what substance melts ice the quickest)</p> <p>Slide 30- Let's grow our own crystals. Follow the instructions on the screen.</p>	<p>TTYP to see what children can remember.</p> <p>In small groups.</p>	<p>Question children when they are conducting experiment- what do you</p>	<p>Beaker Epsom salt Hot tap water Pipettes food</p>

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	<p>1- In the beaker, stir ½ cup of Epsom salt with ½ cup of very hot tap water for at least one minute. This creates a saturated solution. You may still see some salt at the bottom of the beaker.</p> <p>2- Add a couple drops of food colouring if you want your crystals to be coloured.</p> <p>3- Put the beaker in the fridge</p> <p>4- Check on it in a few hours to see a beaker full of crystals. Pour off the remaining solution to examine them.</p> <p>Note- Epsom salt is another name for the chemical magnesium sulphate. The temperature of the water determines how much magnesium sulphate it can hold; it will dissolve more when it is hotter. Cooling the solution rapidly encourages fast crystal growth, since there is less room for the dissolved salt in the cooler, denser solution. As the solution cools, the magnesium sulphate atoms run into each other and join together in a crystal structure. Crystals grown this way will be small, thin, and numerous.</p> <p>Slide 31- Let's make snow. Recap how snow is formed. Follow instructions on the screen.</p> <ol style="list-style-type: none"> 1. Pour 3 cups of baking soda in a bowl 2. Add ½ bottle of white hair conditioner gradually and stir. 3. As it starts clumping together use your hands to mix together. <p>Note- Recap first- how is snow formed? There are many recipes for making snow- this one involves just 2 ingredients, others have shaving foam and some with cornflour. If you have time, it would be great to make different kinds and compare the snow samples you have made. This also works with equal amounts of cornflour and baking soda and adding water as you go to the correct consistency. You can also use nappies to make snow!</p>	<p>In small groups</p>	<p>think you might see? Why? How does this relate to snow crystals?</p> <p>Use WS assessment on</p>	<p>colouring (optional) Fridge access.</p> <p>Baking soda, white hair conditioner.</p>
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 	<p>the odd one out. Encourage children to use the STEM sentence to answer.</p> <p>Slide 37- Spring- What do you think of when you hear the word spring? Chn talk to their partner and feedback. Children to watch the clip of spring- provide children with scrap paper or a whiteboard so they can take notes/make jottings about what they see. EXTENSION -KS1 Dance: Time to Move. Spring in the garden - BBC Teach you could use these resources if you wanted to link with a PE stimulus.</p> <p>Slide 38- Spring. Take children on a spring walk (If this is being taught in spring) If not use the extension part of the lesson. Give children the spring spotters guide from Nature Detectives. If you are teaching this unit in spring the take children on a spring walk. Go hunting around the school grounds and local environment for signs of spring. Use spotter sheets in resources to see what children can find this can include: blossom, frogspawn, butterflies, caterpillars, catkins, birds and birds nests, spring flowers such as snowdrop, daffodil, primrose, crocus, buds appearing on branches and shoots appearing through soil. Children could make a journey stick or a spring time bracelet using a strip of card with double sided tape and secure items to. This makes a good memory prompt about the things they have found along the way.</p> <p>Slide 39- What does spring feel like? Children use memory sticks and spotters guide to record all of the signs of spring. Remind children to label their pictures.</p> <p>Slide 40- EXTENSION LESSON OR ALTERNATIVE LESSON EXT or alternative lesson- This can be done in addition to the spring walk or instead of.</p>	<p>Children to go out as a class, stop at certain points if children spot something. Let children explore.</p> <p>Small groups.</p>	<p>Question children, encourage them to look closely for signs and compare with their spotter sheets.</p> <p>Use WS criteria on resources.</p>	<p>Spring spotters Guide- Nature detectives.</p> <p>Binoculars/ mag glasses (optional)</p> <p>Lesson 4 resources.</p>
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	<p>Ask children the question, ascertain that rain helps things grow such as new shoots, plants.</p> <p>In spring, we have lots of sudden showers. Our task is to make a rain gauge so we can measure the rain.</p> <p>Teachers will need to cut the top off (approx. 10 cm from the top but does not need to be exact). Follow the instructions on screen.</p> <ul style="list-style-type: none"> - Place the top of your bottle upside down in the main part of the bottle. This will stop leaves getting in your bottle. - Take your bottle outside and bury it into the ground (about 5cm in) so it doesn't blow over, you may want to put some small stones in the bottom. NOW WAIT FOR RAIN. <p>Slide 41- When you have rainwater.</p> <ol style="list-style-type: none"> 1- Place a funnel inside a measuring cylinder 2- Pour your rain water into the funnel and read the scale to find out how much rain you have collected. 3- You can repeat this on different days if you have time. <p>Slide 42- How much water did you collect? Read the scale carefully on the cylinder- this could be done using cubes (nonstandard measure)</p> <p>Slide 43- Children to compare their results with the average. Ask children to look at the graph.</p> <p>Which months have the most rainfall? How do they know? Which has the least? What season is this? How much rain did the children collect- does this fit with this pattern?</p> <p>Slide 44- Recap on LOs for the session and children reflect using their unit title page.</p>	<p>Children may need support reading the scales.</p>	<p>Can children use equipment safely? Use WS criteria on resources.</p> <p>Children self reflect.</p>	<p>Bottle per group. Measuring cylinder.</p> <p>Recording sheet part 2 in resources</p> <p>Unit title page</p>
<p><u>Week/Lesson 5</u></p> <p>LO: I can observe the changes across four seasons.</p>	<p>Slide 45- Lets recap what we know so far.</p> <p>Check children's knowledge with this knowledge quiz. This can be done in pairs, individually or small groups. It is good to get children discussing the answers first rather than just hands up as it empowers those who do not know the answer.</p>		<p>Note which children have a solid understanding and those who</p>	




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<p style="color: green;">Today's focus= Summer</p> <p style="color: purple;">WS: I can evaluate my test by suggesting simple improvements</p>  <p style="color: purple;">SE: I can carry out a comparative test.</p> 	<p>Slide 46- Share LO, WS and SE for the lesson.</p> <p>Slide 47- Summer- Ask children what do they think of when they hear the word 'summer?' Brainstorm words and phrases around the picture (this could be stuck in floor books)</p> <p>Slide 48- The sun. Children TTYP about what they know about the sun then share the facts on the screen.</p> <p>Slide 49- Why is it dangerous to look at the sun? Discuss the questions on the slide. Children can use the picture to prompt sun hat, sun cream, sun glasses, cover skin, they may add drink plenty of water. Share facts.</p> <p>Slide 50- Lets investigate the sun's rays. Thread some UV beads on a pipe cleaner and give to children (this will prevent them dropping everywhere) Take children outside briefly so they can see their beads change colour. Explain that the darker the colour the more sun UV rays. Go back inside- ask- why have the beads gone back to colourless? (No sun)</p> <p>Slide 51- Print this page and take outside. Take the children to the different areas of the school so they can look at what happens to their beads. Children to wear their beads on their wrist (using pipe cleaner to attach) and cover with jumper sleeve until they get to the area, ask children to make a prediction about the colour using dark, quite dark, light, very light (record majority) then take them out and observe the colour (record the colour) agreed by majority of children. You could get children recording their own observations and change the focus to recording if required. Repeat in different areas.</p> <p>Slide 52- EXT outdoor activities. If time.....</p>	<p>TTYP.</p> <p>Children to have own UV beads to observe.</p> <p>Work as a whole class and take children's suggestions to record on class recording sheet.</p>	<p>may require pre-teaching.</p> <p>Question what children notice.</p>	<p>UV Beads Pipe cleaners.</p> <p>Print slide 58.</p>
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	<p>If you are doing this in the summer, you could make solar ovens and cook smores in. Children could also observe shadows in the playground and draw around their shadows.</p> <p>Slide 53- What have we found out? (WS assessment) Children to talk to their partner. We found that the sun rays are greater in (playground/exposed) area of the school because (there is no shade or none of the suns rays have been blocked). The (more) shade we had the (less) sun rays we felt, If we did this observation again, I would.... (suggestions such as try at different times of the year, in different weather e.g. cloudy day, rainy day or on different days. They may mention trying at night, dawn, dusk etc) Children to use recording sheet to record their thoughts. MA children may not need the writing frame, they may wish to use the STEM sentences on the board to copy or they may write their own observations with pictures and suggest ways they would improve next time.</p> <p>Slide 54- Recap LO, WS and SE- children reflect on unit title page.</p>	<p>Whole class discussion.</p> <p>Children individually complete sheet.</p>	<p>Use WS assessment on sheet when marking.</p> <p>Children self-reflect.</p>	<p>Lesson 5 resources.</p>
<p><u>Week/Lesson 6</u></p> <p>LO: I can observe and describe weather associated with the seasons and how day length varies.</p> <p>WS: I can ask simple questions about what is going on and make careful observations.</p>	<p>Slide 55- Give children Seasons recording sheet- or use Lo and WS and children to draw into books. Discuss the four seasons and the sorts of things that they would expect in those seasons. Ask children to draw their interpretation of the seasons, this may be a range of pics e.g clothes and weather or it may be trees showing seasons. Leave it up to the children to choose. Share pictures. Talk about the typical weather in each season.</p> <p>Slide 56-Share LO, SE and WS for the lesson. Slide 57- Typical weather in each season.</p>	<p>Children to complete independently.</p>	<p>Question children and recap on lessons if they are struggling or give them a template of a tree and they can use this to support.</p>	<p>Lesson 6 recording sheet in resources.</p> <p>Globe Torch.</p>

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<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="color: purple;">SE: I can identify different clouds and understand how they are formed.</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Demonstrate how the tilt of the Earth’s axis means that we have more sunlight during the summer than the winter. Children should begin to understand that we have more sunlight in the summer and less in the winter. Teacher guidance for explanation visit Earth's Tilt 1: The Reason for the Seasons - YouTube</p> <p>Slide 58- Demonstrate how the tilt of the Earth’s axis means that we have more sunlight during the summer than the winter. Children should begin to understand that we have more sunlight in the summer and less in the winter. Teacher guidance for explanation visit Earth's Tilt 1: The Reason for the Seasons – YouTube. Use a globe and a torch to demonstrate this. OR Seasons and the Sun: Crash Course Kids 11.1 - YouTube</p> <p>Slide 59- What are clouds? Children TTYP then share facts.</p> <p>Slide 60- Children to use the cloud viewers (you may want to print and laminate and cut out the middle) children to hold up the cloud cards to the sky and try to identify the type of clouds they can see. Ask children to keep asking questions about the shapes and patterns of the clouds to identify the clouds in the sky. SK- Clouds- Show children examples of cirrus, cumulus and stratus clouds. Use the meaning of the names of each cloud to help children remember them. Discuss how cloud formations can indicate what kind of weather we might be about to experience. Would cirrus clouds indicate a heavy rainstorm? What do darker clouds often tell us? Cirrus- from the Latin ‘cirrus’ meaning lock or curl of hair Cumulus- ‘cumulo’ means heap or pile in Latin. Stratus- from the Latin prefix ‘strato’ meaning layer.</p> <p>Slide 61- Cloud in a glass. Lets observe how a cloud is made. Follow the instructions on the screen.</p>	<p>Teacher modelling- ask children to support with the demonstration.</p> <p>You can show children this clip if needed.</p> <p>Children to have a viewer one between 2.</p> <p>Small groups</p>	<p>Can children describe what they see and identify on the viewer?</p>	<p>Cloud viewers in resources.</p> <p>Clear glass, warm water, ice, metal dish.</p>
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MEDIUM TERM PLANNING

	<p>-Place ice into metal dish -Pour a small amount of warm water into the bottom of the glass. -Wait until the dish is really cold. Then place it on top of the glass. -Watch the inside carefully. You should see a 'cloud' form near the top of the glass. In the real world, clouds form when warm, moist air, like that in your glass, is cooled (your ice). When it is cooled it condenses into tiny water droplets, which appear as clouds.</p> <p>Slide 62- I can make careful observations. Children to draw their cloud in their jar- labelling the different equipment used. Children can use the cloze procedure sentence STEM to write what they can see by looking closely. Take pictures for the floor book of children looking closely into the glass. I have observed that the (cloud) was formed when the (water vapour) cooled down and started to stick to (dirt, ice or salt). I observed a (add name of cloud from viewer) in the sky. EXT- children to draw the cloud they observed and label it.</p> <p>Slide 63- Recap on LO, WS and SE. Recap on knowledge, WS and SE on unit title page. Ensure this is now complete.</p> <p>Slides 64-77 Unit Quiz and answers Slides 77-84 Answers</p>		<p>Use WS assessment on sheets when marking.</p> <p>Children self-reflect.</p>	
<u>Week/Lesson 7</u>	TAPS Assessment Opportunity			
		Children to complete independently.		Lesson 6 resources.