

THE WINTERTON FEDERATION MEDIUM TERM PLAN SCIENCE Summer Term YEAR 1

Holiday/On Safari Humanities link to seaside/coasts	Learning Objective	Activity – Switched On Science	STEM Activities	Success Criteria
Session 1	To distinguish between an object and the material from which it is made; compare and group together a variety of everyday materials on the basis of their simple physical properties.	<p>Use PPT slides 1-5. Show clip of Mr Bean packing his case for his holiday. (youtube) Then give children a suitcase (small like Mr Bean's), just big enough for them to pack for either a beach holiday or a skiing and snowboarding holiday. You might include: Boots Camera Coat Flip flops Gloves Insect repellent Jumper Lip salve Long-sleeve shirt Scarf Shorts Suncream Sunhat Sunglasses T-shirt Woolly socks.</p> <p>Discuss their choices making reference to the following:- The similarities and differences between the materials and fabrics? The names of different materials, e.g. plastic, cotton? Why have they chosen a T-shirt not a woolly jumper for a holiday in a hot place? Why are items such as lip salve, suncream and sunglasses important? Use the interactive activity on My Rising Stars to reinforce these ideas.</p> <p>Set up investigation at the beginning of the week – place big sheet of coloured card outside in the sun and place different shapes of card on it. Observe what happens to the card over the week. What are the effects of the sun's rays? Re-visit sun safety – slip, slop, slap.</p>		<p>I can use scientific vocabulary when grouping items I can identify and classify objects according to their properties. I can explain that items are made from a particular material, e.g. flip flops are plastic which is waterproof.</p>
Session 2	To describe the simple physical properties of a variety of everyday materials. Perform simple tests	<p>Discuss and explain the benefits of wearing sunglasses. Have a variety of sunglasses for children to investigate. What are they made from? Colour of the lenses? Think about the differences between sunglasses and ordinary glasses. What kinds of materials have been used? What properties do</p>		<p>I can describe how I made my sunglasses lighter or darker I can name which materials were used for sunglasses and how they changed what I saw. I can make links to the properties of the material used in the</p>

		those materials have, e.g. rigid, flexible, hard, transparent? Revisit the meaning of key vocabulary – flexible; transparent. Make own sunglasses using the materials available & resource activity 6.1		sunglasses.
Session 3	Distinguish between an object and the material from which it is made. Compare and group together a variety of everyday materials on the basis of their simple physical properties.	This is a problem-solving activity where children have to make their own decisions and carry out a simple test to answer the problem. Create a display of cool bags, fabric bags, plastic bags, plastic containers and plastic bottles of cold water, etc. Beside the display leave out the large 'Cold water challenge' (Activity Resource 6.1) on which a problem is written for children - to find out which is the best way to keep the plastic bottles of cold water cool on a sunny, hot day at the beach. Then use blank seaside postcards to plan a simple test. Could place the bottles with frozen water inside, e.g. a cool bag, plastic container or wrapped in foil, and leave them for part of the day. Decide to keep everything the same, for the same amount of time and note how much ice melted. The challenge for some might be to recognise that the water needs to stay frozen, so they need to measure the melted ice (water). If there is a lot of water, the wrapping was not successful. Finally, they could reply by writing their own postcard outlining their activity. Draft and redraft their response using a whiteboard before committing their writing to the postcard.		I can carry out a simple test, and use observations to say what happened. I can use test results to make links between observations and draw a simple conclusion. I can group materials based on their simple physical properties
Session 4	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	Use PPT Slides 9-18 to introduce the idea of carnivores, herbivores and omnivores and sea animals and life in general. Use a range of resources such as - TV programmes and video clips to introduce children to the seashore and, if they have visited the beach, remind them of their experiences. Develop ability to Identify and name animals such as		I can use pictures to identify different animals. I can identify different animals using similarities and differences in their structure.

		<p>periwinkles, crabs, lobsters, plaice, black-headed gulls, seals. State whether carnivores, herbivores or omnivores.</p> <p>Compare the structure of animals, e.g. crab, fish, seagull, seal. Classify whether they are invertebrates, fish, birds or mammals. Look for key features, such as fish – scales and fins, birds – wings and beaks, mammals – hair and nostrils for breathing. Provide a collection of plastic animals that live in the sea and on the beach (include birds) for children to become familiar with so that they can learn the names of animals. The pictures in Activity Resource 6.4 can be given as laminated cards, which is then classified into invertebrates, fish, birds and mammals. Sort the cards into hoops or, as a more appropriate context, place the cards in different diorama, e.g. fish in a sea diorama, mammals (such as seals) on rocky islands, and birds on cliffs or a beach habitat diorama. They could also find the animal from a plastic animal collection and place the animal itself in its habitat</p>		
Session 5	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p>	<p>Either create a rock pool, preferably outdoors, with shallow water and rocks. Put sand around it (for the seashore) and real or plastic seaweed. You could stick seashells onto the rocks and place plastic animals in and around the rock pool such as crabs, lobsters, fish, sea- anemones. Observe and then collect items before using books, posters and audio information around the rock pool to find out information about the animals.</p> <p>OR</p> <p>Sea shells are the hard, protective outer layer created by an animal that lives in the sea. It was part of an animal’s body, but the soft part has probably been eaten by</p>		<p>I can use pictures to identify different animals.</p> <p>I can identify different animals using similarities and differences in their structure.</p>

		<p>another animal. Show a live snail, to help understand that this land animal has a shell, and we often find empty snail shells around gardens. Like garden snails, animals that lived in the shells are invertebrates, a word that children will have learned in the topic 'On safari'. Leave out seashells for children to sort into groups and use. Children are fascinated by seashells, but few can name common shells or know anything about the animals that made them. Activity Resource 6.5 has illustrations of common shells found around the coasts of the British Isles. Ask children to identify as many as possible of the ones you bring into the classroom.</p>		
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