

Objective	Milestone 1 Indicators	INPUT	Basic Activities	Advanced Activities	Deep Activities	PLENARY Inc. FS2
Milestone 1 To investigate materials	Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock <u>Working scientifically</u> Observe closely Identify and classify Use their observations to suggest answers to questions	<u>Materials</u> Have a large collection of materials and objects made of different materials on the carpet. Write <u>material</u> on w/b & explain to children we use this word scientifically to mean what objects are made from. Explain to the children that you want them to explore all the different things by looking at them and feeling them. Ask them to think about <u>what material the things are made of</u> . Bring children back together and make a list of all the materials they can name on a flip chart or whiteboard. Practice reading the words.	I can find and name materials around our classroom Go on a materials hunt around the classroom - draw what you have found under the correct material words supported by adult Give children Ipads to take photos of specific materials	I can match materials to objects. Given pictures of objects in the classroom - children to write the material they think it is made from next to each object - use a word bank to help with spellings (in Theme books)	I can group objects by their material. I can write what material the objects are made from. Select objects from around the room and place them in material groups. Write as a list in Science books.	Ask the chn to consider these questions: What would the classroom be like if the tables were made of jelly? Or the chairs were chocolate?
			COMPUTERS - http://www.bbc.co.uk/schools/scienceclips/ages/5_6/sorting_using_mate.shtml - A sorting and using materials challenge game.			
Milestone 1 To investigate materials	Programme of study: Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties <u>Working scientifically</u> Observe closely Identify and classify	<u>Properties of materials</u> Reap from yesterday about materials - show pictures for children to identify the material Remind children that in the last session they found out that scientists called the stuff that things are made from: materials. Explain that today they are going to think about some other scientific words. In pairs they should discuss how they would describe the objects. Bring class back together & ask for	I can group materials according to their properties Science investigation - exploring materials and properties Talk about how they feel and what they are like - have properties words on flashcards and group materials by these properties	I can describe the properties of materials Children choose 5 objects from a wide selection. They stick pictures of that object in books & list some properties of the object around their drawing. <i>Can they find at least 3 properties for each object?</i>	I can describe the properties of materials and group them according to their properties Show children a group of objects & ask how they could be sorted depending on their properties. Use hoops and create venn diagrams	If time play a game with the children - give the children a picture of an object and ask them to stand near a word that best describes that materials properties.
			COMPUTERS - http://www.bbc.co.uk/schools/scienceclips/ages/5_6/sorting_using_mate.shtml - A sorting and using materials challenge game;			

		<p>suggestions, e.g. hard, rough, smooth, strong, & wooden.</p> <p>Properties are features which a material possesses - Show them another pair of objects, e.g. small sponge ball & cricket ball or airflow plastic ball. Ask them to suggest some properties, e.g. soft/hard, bendy/rigid, absorbent, etc. <i>What materials are they made from?</i> Plastic, rubber? Point out that properties often have an opposite, e.g. hard/soft, shiny/dull, bendy/rigid, rough/smooth, etc.</p>				
<p>Milestone 1</p> <p>To investigate materials</p>	<p>Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Working scientifically Identify and classify Gather and record data</p>	<p>Man-made and Natural The concept MAN MADE OR NATURAL. Start with 2 sets of objects. One set of natural materials (wood, stone, wool, piece of slate, rock with metal ores) and one set of objects shaped from those materials (ruler, chair, spoon, jewellery, ornament, picture of sculpture, piece of or picture of kitchen worktop, ring, saucepan, metal spoon, roof slate). Explain that these objects have been mainly shaped from the natural materials so that we can use them. Get the children to match them. Then introduce another set of objects including plastics, glass and paper. Explain that some things have been heated up and shaped and other chemicals added. Explain that the plastic things were originally made from crude oil, glass is made from sand and other chemicals, and paper is</p>	<p>I can identify natural and man-made materials</p> <p>Practically sort objects into manmade and natural - take photographs</p>	<p>I can identify natural and man-made materials and talk about where the natural materials come from.</p> <p>sorting man-made and natural materials - cut and stick into books</p>	<p>I can label a picture of a house from the past and present and say whether the materials are man-made or natural.</p>	<p>In the hall - show children pictures of materials and ask them to skip / hop / jog to whether it is natural or man made</p>
			<p>Watch from sheep to woolly scarves or how glass is made at http://www.bbc.co.uk/programmes/p011t2b6 & http://www.bbc.co.uk/programmes/p011ldh1 respectively.</p>			

		usually made from wood chips that have to be boiled up		
<p>Milestone 1</p> <p>To investigate materials</p>	<p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses.</p> <p>Working scientifically Perform simple tests.</p>	<p>Gather the chn together. Show them the tray with the cloth over the objects. Say: <i>In a minute I am going to take the cloth away and you must look very carefully at the objects. One of them will be the odd one out. When you think you know, don't call out but just put your thumb up.</i> Show the chn the tray and only tell them that they need to be thinking about material properties when they have had their initial guesses. Play this several times, asking the chn to talk about why they have selected an object to be the odd one out. Ask questions such as: <i>Why have you chosen this object? What makes it different from the other objects? Is there another object we could put on the tray to keep it company? Another object made from the same material? Talk about all the different ways they might choose the odd one out - there can be more than one correct answer.</i></p>	<p>I can investigate materials and perform simple tests</p> <ol style="list-style-type: none"> 1. floating and sinking 2. magnetic and non-magnetic 3. squashing, bending, twisting etc 4. waterproof / not waterproof <p>children carry out circuit of activities and record their findings through photographs or drawings for theme books.</p>	<p>Sit the chn down and ask them to wonder about this question: if everything I touched became flexible (floppy), how would my life be different? You could tell them the story of King Midas and how everything he touched turned to gold metal. It sounds like a great idea but think about the things that would be no good if they were made of gold! (Food, water, clothes, etc.)</p>
<p>Milestone 1</p> <p>To investigate materials</p>	<p>Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including</p>	<p>The 3 Little Pigs Houses Stick a 'What's My Material?' card on the back of each child, making sure that they don't see it and others don't say what it is. Then ask all the chn to walk around the classroom, asking each other</p>	<p>I can use materials to build the 3 little pigs houses and talk about what happened using scientific vocabulary Place the chn in small groups and challenge them to build the three pigs' houses using an array of materials: art straws, hay/straw, little twigs or lolly sticks, playdough, clay and Lego. Allow them to explore the different materials and encourage them to talk about them using their scientific vocabulary. There are examples in the resource of house building with</p>	<p>Video the chn retelling the story of the 3 little pigs, giving explanations as to why the houses fall</p>

	<p>wood, plastic, glass, metal, water and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Working scientifically</p> <p>Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions.</p> <ul style="list-style-type: none"> • Gather and record data to help in answering questions. 	<p>questions to help them work out what image is stuck on their own back. Suggest to the chn that they should ask questions regarding properties, such as: <i>Am I flexible? Am I soft? Strong? Magnetic? Natural or man made?</i> When everyone has worked out the material on their backs, ask the class to sit down on the carpet. If possible, allow the chn to watch and explore 'The 3 Little Pigs' story on the Nosy Crow app (see weblinks), Alternatively, you may wish to play a video clip (see weblinks) or read the story to the chn. At the end of the story, discussing the materials used with the chn, asking questions such as: <i>why did the first two houses fall down? Why did the third one stay standing? What materials did they build their houses out of? What material could have been used instead for the first two houses?</i></p>	<p>different materials. Ask the chn to verbalise how the materials feel and behave, asking questions such as: <i>does it feel soft? Strong? Will it be good material for building a house? Will it blow down when the Wolf blows? Why will it blow down? What useful properties do the materials need to have, to be good materials for house building?</i> Ask each group of chn to tell you which material will be the most successful for house-building and why</p> <p>http://nosycrow.com/apps/the-three-little-pigs/ - Three Little pigs iPad app; https://www.youtube.com/watch?v=CtP83CWOMwc - The Three Little Pigs video clip.</p>	<p>down. You might want to do this in small groups, or as a whole class listening to a group of volunteers who feel confident enough to retell the story to camera. Ask the whole class to think about why some pigs may not choose to use bricks (more expensive, heavier, harder work to build with, etc.) and suggest a successful alternative</p>
<p>Milestone 1</p> <p>To investigate materials</p>	<p>Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Describe the simple physical properties of a variety of</p>	<p><u>The 3 Little Pigs Houses</u></p> <p>Ask the chn to sit on the carpet. Play the videos from the previous session, asking the groups of chn to explain what they learned from that session (or previous sessions) to the rest of the class when their video clip has been played. If a group of chn didn't make a video recording, ask them to share their learning anyway. Together as a class, recap why each building material was a good or bad</p>	<p>I can choose alternative materials to build the 3 little pigs house and talk about what happens to those materials.</p> <p>Ask the chn to wash their hands before they make their houses. Place the chn in small groups or pairs and give them a supply of edible building materials. Do not tell them which ones to use for each house but encourage them to look carefully at the properties of each material. Ask the chn to verbalise how the materials feel and, when they have built their houses, encourage them to predict which house would stay standing if the Wolf blew hard on it. Ask the chn to explain their reasoning.</p> <p>Then use a fan to represent the wolf - will the house fall down? Why did it</p>	<p>Photograph the houses and, if the school policy allows, let the chn eat a small amount of the houses. Alternatively, give the chn a house each to take home in a freezer bag. Ask them to</p>

	<p>everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p><u>Working scientifically</u></p> <p>Ask simple questions. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions.</p> <ul style="list-style-type: none"> • Gather and record data to help in answering questions. 	<p>material to use. Encourage the chn to explain using their learning and scientific vocabulary (The straw was too light and flexible to be of any use in a building project, the bricks were hard, heavy and strong, etc.). Introduce the chn to the edible alternative building materials and challenge them to make three houses for the pigs, without eating the building materials!</p>	<p>fall down? Why didn't it fall down? What was wrong with the material? What was good about the material?</p>	<p>wonder and consider what life would be like if houses were really built of edible building materials. Ask them to share their thoughts.</p>
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