



Pinner Wood School



Year Group	2	Term	Autumn 1	Subject	Science	Topic	Materials
						Key Question	What are materials and how do we use them ?
Prior Learning and other Curriculum Links	Year 1 <ul style="list-style-type: none">I can tell the difference between an object and the material from which it is made.I can name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.I can describe the simple physical properties of a variety of everyday materialsI can compare and group together a variety of everyday materials on the basis of their simple physical properties.					Skills statements	<ul style="list-style-type: none">I can name and group materials.I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
Fundamentals	<ul style="list-style-type: none">identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses					Key Facts/Sticky Knowledge	<ul style="list-style-type: none">Objects are made from different materialsMaterials have different properties (features)Plastic is waterproofWood is rigid and hardMetal is strong and waterproofBrick is hard and rough.

Our Curriculum Journey	<p>Stunning Start: We will begin by looking at a variety of materials and describing their properties.</p> <p>Journey: Children will plan and conduct an experiment to find out the best material to use for Little Red Riding Hood's cloak.</p> <p>Show stopper: We will design a house for Grandma from LRRH using appropriate materials and explaining why they are suitable.</p>		
Key Vocabulary (revisited)	hard, soft, fluffy, rough, smooth, shiny, dull, light, heavy, harder, lighter, rougher, materials, wood, wooden, plastic, metal, glass, water, rock, brick, paper, predict, results	Key Vocabulary (new)	wood, metal, plastic, glass, brick, rock, paper, prediction, results, conclusion, transparent, opaque, translucent

Lesson Number: 1 Location: Classroom	Learning objectives: KQ : What do I know about different materials? Assessment	Lesson Outcome: chn will complete the vocabulary spider diagram in their books.	
	Introduction: Explain that we will be learning about materials this half term. Ask chn to tell you the names of the different materials that they know. Main teaching		Resources Spider diagram sheets IWB slides

	<p>HA/MA: Chn complete the spider diagram as a form of assessment.</p> <p>LA/S: supported by TA</p> <p>Plenary: Show the knowledge oragnise and talk through it.</p>	
--	---	--

<p>Lesson Number: 2 Location: Classroom</p>	<p>Learning objectives: KQ : Can I describe objects, including naming the material from which they are made?</p>	<p>Lesson Outcome: Chn will glue objects into their books that are made of different mateials and reord their properties.</p>		
	<p>Introduction: Visit BBC materials information video: http://www.bbc.co.uk/education/clips/ztjc87h</p> <p>Main teaching Work through IWB slides and discuss the different materials and objects that are made from that material. Discuss properties of each material too.</p>		<p>Resources IWB slides Differentiated worksheets Variety of different materials</p>	
	<p>Main Teaching including differentiation: HA: Stick examples into books and label: match stick (wood), foil (metal), card, fabric, plastic, elastic band</p>			

	<p>MA: Stick examples into books and label: match stick (wood), foil (metal), card, fabric, plastic, elastic band</p> <p>LA: Stick examples into books and label: match stick (wood), foil (metal), card, fabric, plastic, elastic band</p> <p>S: supported by a word bank and TA.</p> <p>Challenge: Children write properties of each material e.g. rigid, smooth, transparent, opaque, transparent, flexible, rigid, magnetic, permeable, waterproof. See IWB slides for vocabulary</p>	
--	---	--

<p>Lesson Number: 3 Location:</p>	<p>KQ: Can I carry out an experiment to find waterproof materials? PRACTICAL (linked to LRRH)</p>	<p>Lesson Outcome: chn will carry out an experiment to see which material is best suited to make a bucket.</p>
	<p><u>Introduction:</u></p>	<p>Resources</p>

	<p>Explain that Little Red Riding needs a new cloak as he rold one is very tatty and old. What does her cloak need to be like? How will you test theses materials? Is it waterproof/ would it be good for a cloak? Which material would you choose to make the cloak from? Why would you choose this material?</p>	<p>IWB slides</p> <p>plastic wood metal paper</p> <p>table for results</p>
	<p>Main Teaching including differentiation: Explain to children that they are going to be given a range of different materials to explore and that their challenge is to decide whether the material has the correct properties for a cloak.</p> <p>Mixed abilty groups: chn to carry out the experiment and record the results in a table.</p> <p>Keep this table for lesson 4</p> <p><u>Plenary:</u> Discuss results and any conclusions the children have made as a group.</p>	

Lesson Number: 4 Location: Classroom	KQ: Can I carry out an experiment to find waterproof materials? WRITE UP (linked to LRRH)	Lesson Outcome: chn will write up their experiment in their books using the templates.
	Introduction: Remind chn of the experiment we did in lesson 3.	Resources Differentiated investigation templates IWB slides
	Main Teaching including differentiation: <u>Main teaching</u> We are now going to write up this experiment together a class. Teacher to model each step on the IWB. HA/MA/LA: Chn to write up the investigation using the differentiated templates. S: supported by TA. <u>Activities</u> Children to use the differentiated investigation template to write up the experiment. <u>Plenary:</u> Which would be the best material for a bucket?	

Lesson Number: 5 Location: Classroom	KQ: Can I explain which materials are better suited to build a house and why? (linked to LRRH)	Lesson Outcome: chn will be able to build a house and explain the materials used and why they are good choices in their books.
	Introduction:	Resources

	<p>Explain to children that Grandma from LRRh needs a new house as her her current house is very old.</p> <p>What can be used instead?</p>	<p>IWB slides L.Os</p>
	<p>Main Teaching including differentiation: Show a picture of Grandma's current house. What materials are used? Are these suitable? What was dangerous? What could make the new houses safer? What materials should be used?</p> <p>Differentiated worksheets HA/MA/ LA: build a house activity. Lable the materials they would use and why S: build a house acitivity and label the materials used</p>	
<p>Lesson Number: 6 Location: Classroom</p>	<p>KQ: Can I explain how the properties of a material suits its purpose? END OF UNIT ASSESSMENT</p>	<p>Lesson Outcome Chn will be able to discuss materials and their uses and record via Seesaw.</p>
<p>SEESAW lesson</p>	<p>Introduction: Explain to children that we will be working in pairs to discuss how materials are suited to their uses.</p>	<p>Resources IWB slides Ipads</p>

	<p>Main Teaching including differentiation: Show the children pictures of objects e.g light bulb, wall, window, spoon, slide etc. Discuss what material these objects are made from. Why are they a good choice of material for that object? Encourage the chn to use the key vocabulary (flexible, transparent etc). jot these on the IWB as you work through the slides.</p> <p>HA/MA/ LA: Mixed ability pairs. Chn to select an everyday object and discuss what material it is made up of and why it is a good choice of material for it.</p> <p>S: supported by TA</p>	L.Os
--	--	------