

Science Learning Design

Topic & Subtopics :	Variety of materials (non-living things) and their properties	Class:	Year 6	Duration:	3 periods
Content Learning Objectives:	<ul style="list-style-type: none"> Identify properties of materials (non-living things) – Flexibility Explain that materials that can be bend without breaking is flexible 				

Teaching & Learning Activities					Resources	Summary
Tuning in (Engage, Elicit) <i>Determine prior knowledge and prepare pupils</i>	<ol style="list-style-type: none">Review previous lesson by conducting a classification race. Students are given pictures of objects and they classified them into types of materials correctly on the mini manila cardShow students the objects you have brought.Pass them around, tell students to touch/feel them.Ask questions, e.g. what can you tell me about rock? (Expected responses – hard, rough)				<p>Pictures: plastic bag, a shirt, a wooden chair, a metal spoon, a vase, a tyre, a glass.</p> <p>Mini manila card</p> <p>Iron nail, shirt wooden pencil, plastic ruler, yarn, metal fork, handkerchief</p>	
	Finding out & Sorting out (Explore) <i>Time to locate, gather information, organise and process ideas.</i>	<ol style="list-style-type: none">With the same materials, students (in pairs) are asked whether these objects can be bent.Write the word ‘bend’ on the board and ask students if they know this word. Show how to bend in front of the students.Let students know that that they will bend the objects given to test for flexibility.Emphasise the term ‘flexible’<ul style="list-style-type: none">Things that can be bend without breakingProvide a chart for students to fill in.				<p>A4 Chart</p> <p>Whiteboard</p> <p>Iron nail, shirt, wooden pencil, plastic ruler, yarn, metal fork, handkerchief Ice cream stick, Rubber band</p>
Objects		Materials	Can you bend it? (Yes/No)	Does it break? (Yes/ No)		
Iron nail						
Shirt						
Wooden pencil						
Yarn						
Plastic ruler						
Metal fork						
Handkerchief						
Ice cream stick						
Rubber band						

<p>Making Conclusions (Explain) <i>Draw conclusion and consolidate understanding</i></p>	<ol style="list-style-type: none"> Teacher should have her own chart (the same chart) on the board. Go through the results of the activity with the students. Then ask students questions such as: <ul style="list-style-type: none"> “the objects that you can bend are made of what?” Did the plastic ruler (an e.g.) break when you bend it? Is plastic ruler flexible? Emphasise the term ‘flexible’ again. Based on their findings of the activity, students are asked to draw conclusion that materials that can be bend and do not break is flexible. 	<p>Manila card (Teacher’s own chart)</p> <p>Whiteboard</p> <p>Iron nail, shirt, wooden pencil, plastic ruler, yarn, metal fork, handkerchief, Ice cream stick, Rubber band</p>	<ul style="list-style-type: none"> Explain that flexible are materials that can be bend without breaking
<p>Go further (Elaborate, Extend, Evaluate) <i>Apply knowledge to develop further understanding</i></p>	<ol style="list-style-type: none"> Take the students outside to your car. Ask students which part of your car (the exterior) is flexible. (Expected response – tyre) Ask students questions: <ul style="list-style-type: none"> “what material is used to make a tyre?” (Expected response – rubber) “why rubber is good to make a tyre?” (Expected responses – hard, strong, can be bend, do not break, flexible) “can we make tyre from glass? Ceramic? Why?” Take students around in the school. In pairs, they are to find two / three things that are flexible. Students write their answers on the mini whiteboard that they bring along. In the classroom, they will share their findings. <p>😊 Homework: Find two/three things in their house that are flexible.</p>	<p>Car</p> <p>Room</p> <p>Mini whiteboard</p>	<ul style="list-style-type: none"> Recognize things that are flexible (from their daily life experiences – school, home)

Evaluation (with respect to the Content Learning Objectives)	
What worked well?	What would make it even better next time?

Activity Worksheet

Objects	Materials	Can you bend it? (Yes/No)	Does it break? (Yes/ No)
Iron nail			
Shirt			
Wooden pencil			
Yarn			
Plastic ruler			
Metal fork			
Handkerchief			
Ice cream stick			
Rubber band			