



CIKGU

DILA JUHAN

# Materials

Science year 4  
Unit 8

# Basic source of material

living things

non living things



**Plants**



**Animals**



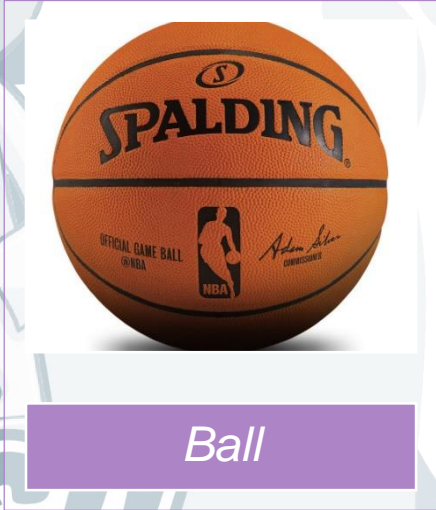
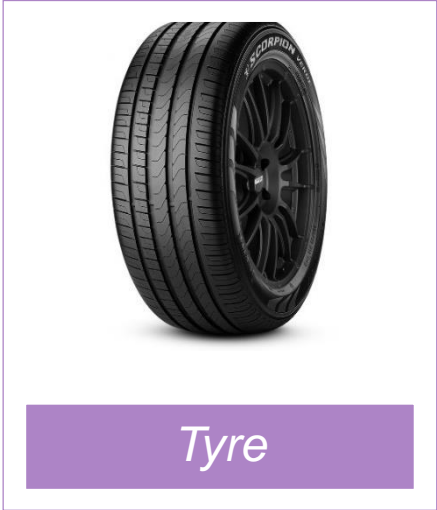
**Petroleum**



**Rocks**

# Plants: Rubber

Rubber obtained from rubber tree.  
Rubber is a white liquid called latex.



# Plants: Wood

Wood obtained from trees.



Tissue



Pencils



Paper



Cupboard



Table



Chair



# Plants: Cotton

Cotton obtained from the cotton plant .



Pillow



Blanket



Clothes



Thread



Towel



# Plants: Rattan and bamboo

Rattan obtained from **rattan plants**.  
Bamboo obtained from **bamboo trees**.



*Rattan plants*



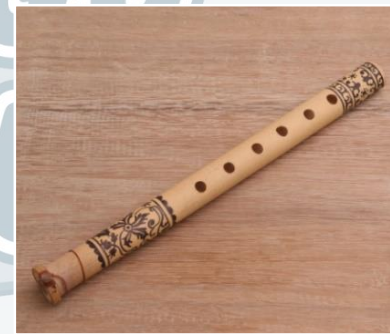
*Rattan chair*



*Rattan baskets*



*Bamboo mat*



*Bamboo flute*



*Bamboo trees*

# Animals: Wool

**Wool** obtained from **sheep**.

**Wool** is a **soft thick hair** which comes from sheep.



Wool



Sheep



Woolen cap



Sweater



Blanket



Gloves



Carpet

# Animals: Leather

Leather is obtained from animal's skin such as cow.



Shoes



Belt



Leather sofa



Cow



Handbag



Wallet



Cow leather

# Animals: Fur and feather

**Fur** is a thick soft hair that covers the body of some types of animals. **Feather** is from birds.



Fur



Painting brush



Fur coat



Feather duster



Shuttlecock

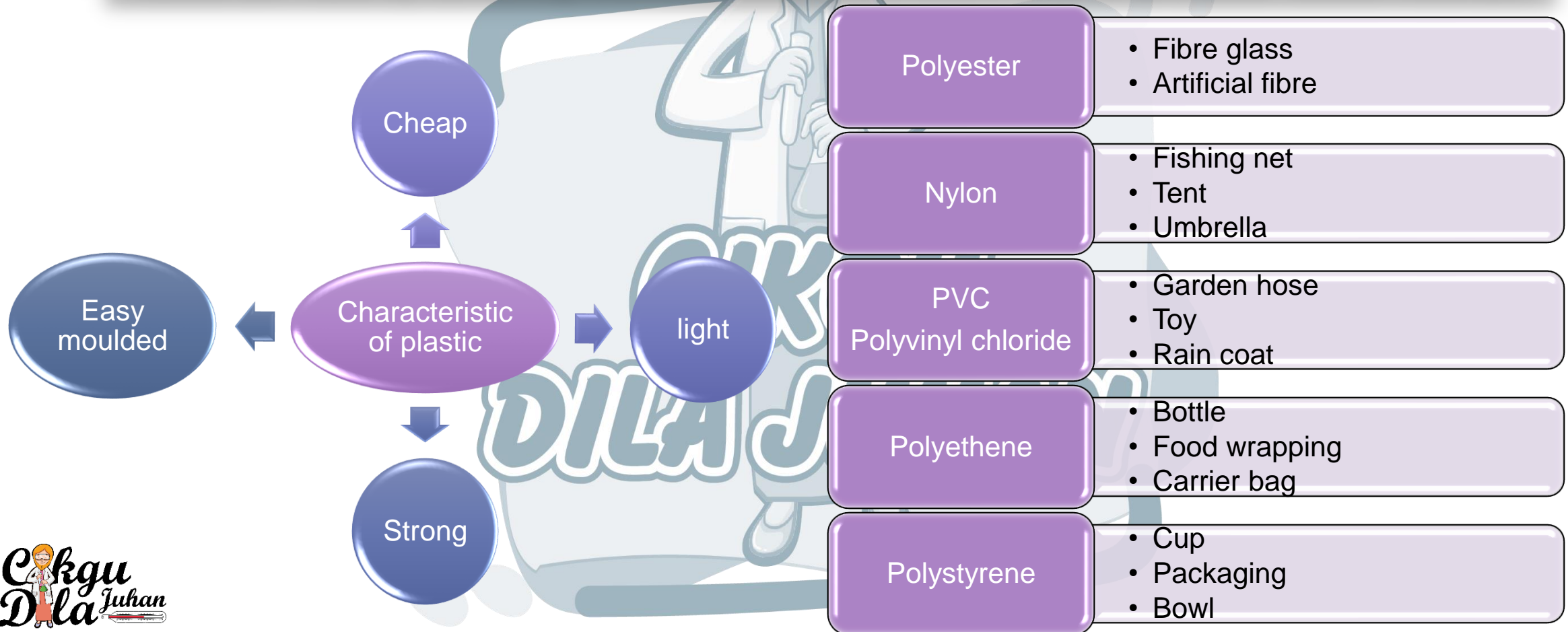


Feather








# Petroleum: Plastic

**Petroleum** is a black oil obtained from **ground** formed from **living things that had died millions of years ago**.

Plastics are made by combining chemicals such as petroleum, coal, oil and other natural materials.



## Most commonly used plastics

	What is it used for?	Next life	Ease of recycling
Polyethylene Terephthalate (PET) 	Soft drink bottles, food packaging such as punnets	Used to make more PET products	Easy
High Density Polyethylene (HDPE) 	Milk cartons, cleaning products, yoghurt pots, soap dispensers	Garden furniture, pipes and more milk cartons	Easy
Polyvinyl Chloride (PVC) 	Pipe fittings, window fittings, thermal insulation, car parts	Used to make more PVC products	Difficult
Low Density Polyethylene (LDPE) 	Food bags, shopping bags, magazine wrapping	Bin liners, plastic furniture and floor tiles	Manageable
Polypropylene (PP) 	Margarine tubs, microwave meal trays, fibres and filaments for carpet, wall coverings, vehicle upholstery	Clothing fibres, food containers, speed humps	Easy
Polystyrene (PS) 	Some yoghurt pots, takeaway boxes, plastic cutlery, protective packaging, insulation	As more packaging	Difficult
Other 	This includes other forms of plastic including composites, such as salad bags and crisp packets	Goes to landfill	Very difficult



Recyclable



Recyclable at specialist points



Not easily recyclable

Which?

# Rocks

## Underground resources

Rocks

Metal

Soil

Gold

Copper

Clay

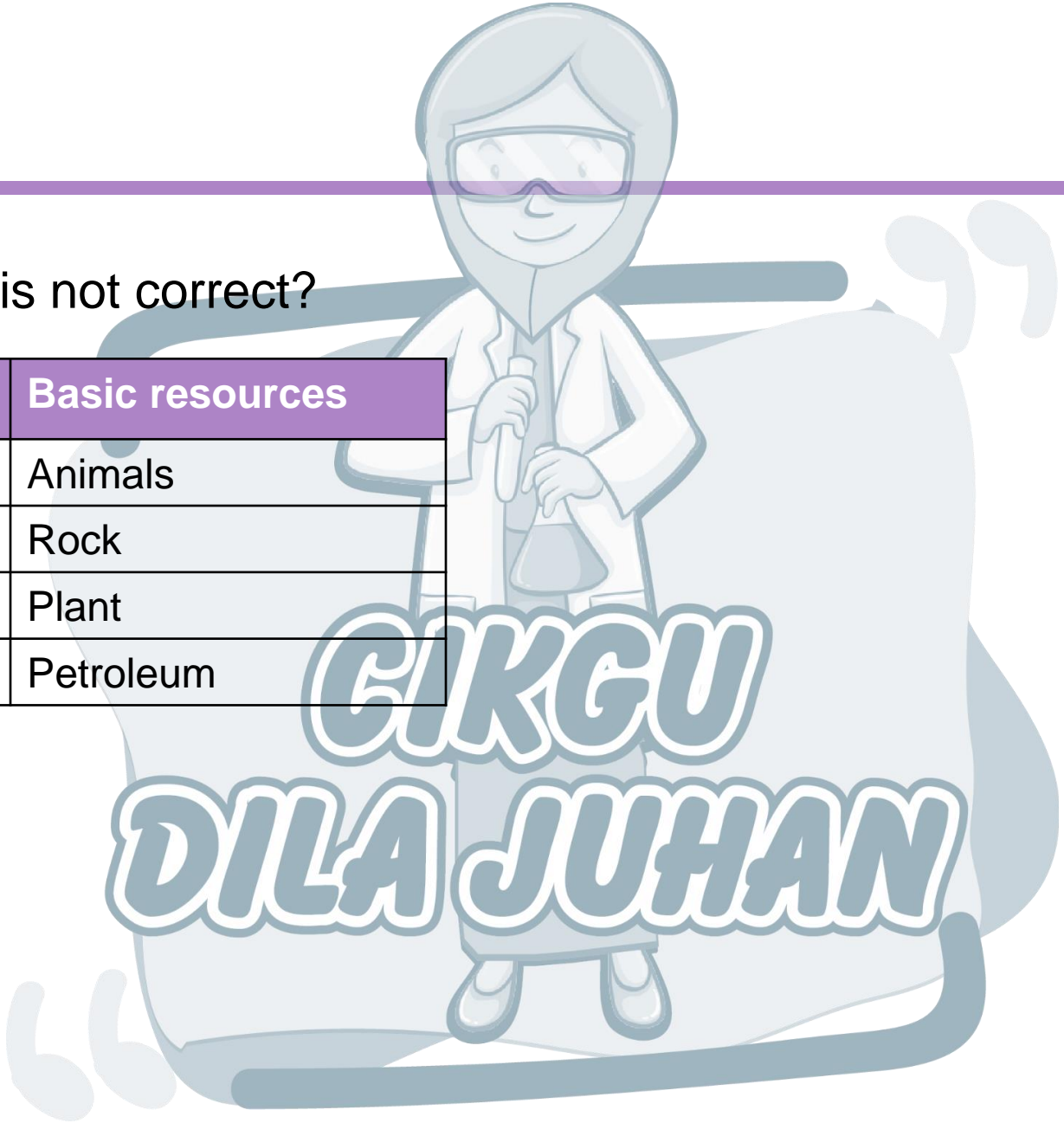
Sand



# Question

1. Which match is not correct?

	Material	Basic resources
A	Fur	Animals
B	Soil	Rock
C	Cotton	Plant
D	Rubber	Petroleum

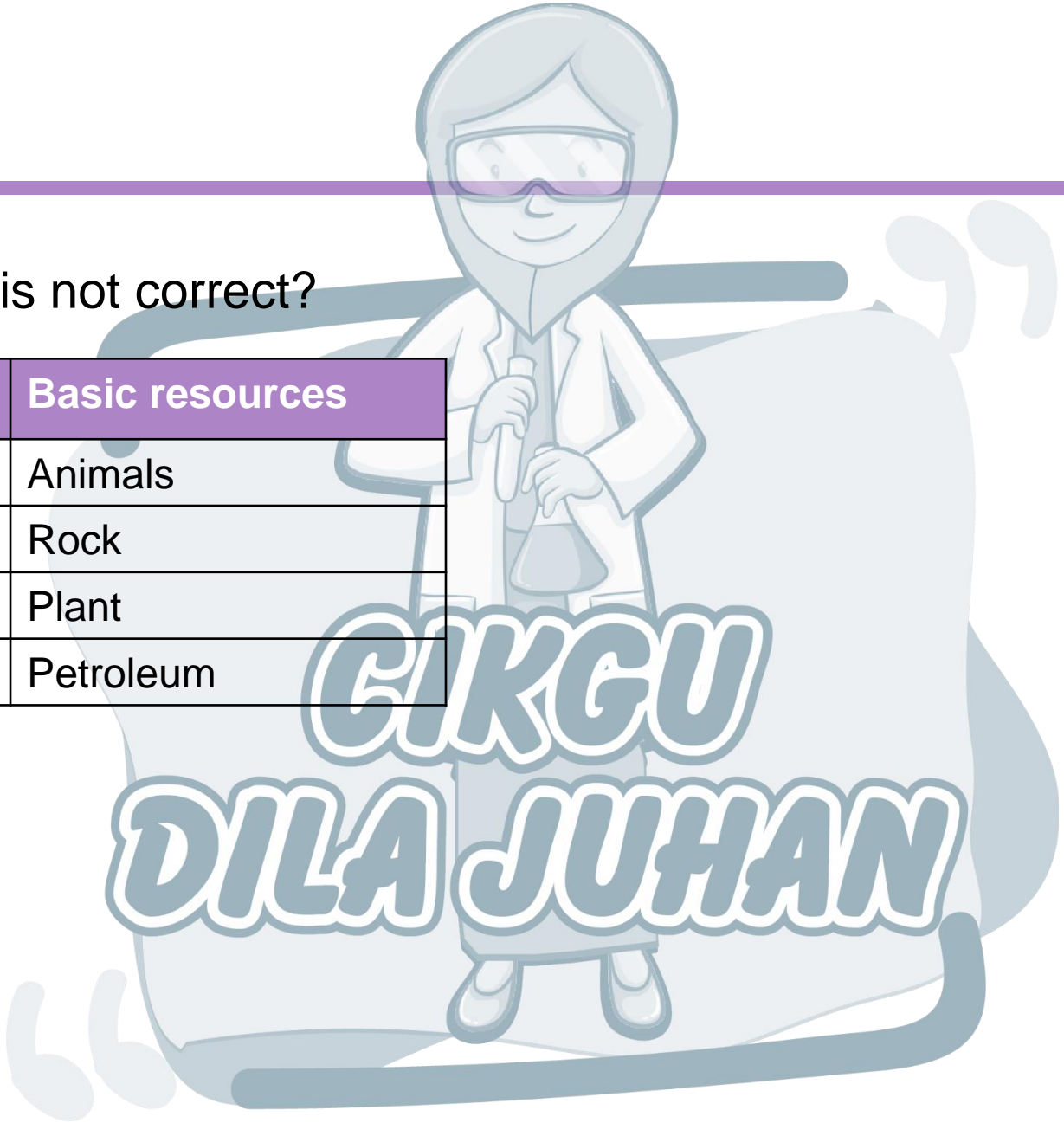


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# Question

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	Material	Basic resources
A	Fur	Animals
B	Soil	Rock
C	Cotton	Plant
<b>D</b>	Rubber	Petroleum



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# Activity

1. Choose three item around you.
2. Classify the source of material that you have.



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# Properties of materials

Ability to absorb water

Ability to float on water

Elasticity of materials

Conductor or insulator electricity

Conductor or insulator heat

Ability to allow light to pass through

## Activity

1. Identify the properties of materials that you have previously .



Identify the correct answer

Object	Material used to make the object	Float	Sink
Paper	Plant (wood)	/	
Iron nail			
Cork			
Marble			
Paper clip			

# Identify the correct answer

Object	Material used to make the object	Float	Sink
Paper	Plant (wood)	/	
Iron nail	Rock (metal)		/
Cork	Plant (wood)	/	
Marble	Rock (soil)		/
Paper clip	Rock (metal)		/

# Identify the correct answer

Object	Material used to make the object	Able to stretch and return to its original shape	Elastic or non-elastic
Gloves	Plant (rubber)	/	Elastic
Plastic ruler			
Balloon			
Glass rod			
Spoon			
Paper			

# Identify the correct answer

Object	Material used to make the object	Able to stretch and return to its original shape	Elastic or non-elastic
Gloves	Plant (rubber)	/	Elastic
Plastic ruler	Petroleum (plastic)	X	Non-elastic
Balloon	Plant (rubber)	/	Elastic
Glass rod	Rock (soil)	X	Non-elastic
Spoon	Rock (metal)	X	Non-elastic
Paper	Plant (wood)	X	Non-elastic

# Identify the correct answer

Object	Material used to make the object	Bulb lights up or not	Conductor or insulator of electricity
Key	Rock (metal)	/	Conductor
Iron nail			
Pencil			
Plastic ruler			
Eraser			

# Identify the correct answer

Object	Material used to make the object	Bulb lights up or not	Conductor or insulator of electricity
Key	Rock (metal)	/	Conductor
Iron nail	Rock (metal)	/	Conductor
Pencil	Plant (wood)	X	insulator
Plastic ruler	Petroleum (plastic)	X	insulator
Eraser	Plant (rubber)	X	insulator

# Identify the correct answer

Object	Observation	Light penetration ability
Transparent plastic	Picture can be seen clearly	Transparent
Tracing paper		
Cardboard		
Color paper		
Clear glass sheet		

# Identify the correct answer

Object	Observation	Light penetration ability
Transparent plastic	Picture can be seen clearly	Transparent
Tracing paper	Picture cannot be seen clearly	Translucent
Cardboard	Picture cannot be seen at all	Opaque
Color paper	Picture cannot be seen at all	Opaque
Clear glass sheet	Picture can be seen clearly	Transparent

# Selection of Materials in creating objects

State the materials used for the objects below and explain the properties of the materials



**Scan for extra exercise**



**Scan for extra note**



