

Disclaimer

This resource is provided for informational and educational purposes only. As this resource refers to small items/loose parts which may present a choking risk, and sharp equipment, you must ensure that an adequate risk assessment is carried out prior to using this resource. Twinkl is not responsible for the health and safety of your group or environment. It is your responsibility to ensure the resource and the information/activity it contains are safe and appropriate to use in your situation. As this resource refers to magnets which may present a health risk, you must ensure that an adequate risk assessment is carried out prior to using this resource.

Matching Materials

To classify and group materials by their properties, including hardness, transparency and magnetism.



Draw a line to match each material to the purpose it is best suited for.



a baking tray



an opaque box



a statue



the coating on an electrical wire



a coat

Can you explain to your partner why you matched each material to each purpose?

Matching Materials

To classify and group materials by their properties, including hardness, transparency and magnetism.



Fill in the table with the best material for each purpose and the reason you chose that material. You may find some helpful words and phrases in the word bank.

Purpose	Material Chosen	Why This Material?
a baking tray		
an opaque box		
a statue		
the coating on an electrical wire		
the inside of a wire		
a magnetic game for children		
a disposable fork		

Word Bank

metal

wood

stone

plastic

magnetic metal

Matching Materials

To classify and group materials by their properties, including hardness, transparency and magnetism.

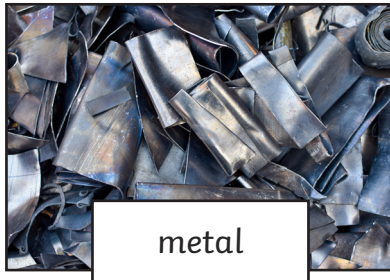


Fill in the table with the best material for each purpose and the reason you chose that material. You may find some helpful words and phrases in the word bank.

Purpose	Appropriate Choice of Material	Inappropriate Choice of Material	Explain Your Choices
a baking tray			
an opaque box			
a statue			
the coating on an electrical wire			
the inside of a wire			
a magnetic game for children			
a disposable fork			

Matching Materials Answers

Draw a line to match each material to the purpose it is best suited for.



a baking tray

an opaque box

a statue

the coating on an
electrical wire

a coat

Can you explain to your partner why you matched each material to each purpose?

Matching Materials Answers

Answers will vary. Below are some examples of answers that could be given.

Purpose	Material Chosen	Why This Material?
a baking tray	metal	Metal is hard, durable and will keep its shape when heated in an oven. Children may note that metal is a thermal conductor.
an opaque box	wood	Wood is opaque. It is easy to cut and shape into a box.
a statue	stone	Stone is hard, durable and waterproof. A statue made of stone will last a long time.
the coating on an electrical wire	plastic	Plastic is durable and flexible. Children may note it is an electrical insulator.
the inside of a wire	metal	Metal is durable, flexible and an electrical conductor.
a magnetic game for children	magnetic metal, e.g. iron	A magnetic metal would be needed for its reaction to magnets.
a disposable fork	wood	Wood is biodegradable. Children may note that it is a more sustainable choice than plastic.

Word Bank

metal

wood

stone

plastic

magnetic metal

Matching Materials Answers

Answers will vary. Below are some examples of answers that could be given.

Purpose	Appropriate Choice of Material	Inappropriate Choice of Material	Explain Your Choices
a baking tray	metal	wood	Metal would conduct heat without changing but wood would set on fire.
an opaque box	wood	glass	Glass is transparent but wood is opaque. Wood is easy to cut into the shape of a box.
a statue	stone	paper	Stone is more durable and harder than paper. Paper is not waterproof.
the coating on an electrical wire	plastic	metal	Plastic would stop electricity being conducted to any unintended objects outside the wire. Metal would conduct the electricity.
the inside of a wire	metal	plastic	Metal would conduct electricity along the wire. Plastic would not.
a magnetic game for children	magnetic metal, e.g. iron	non-magnetic metal, e.g. aluminum	The game needs to include a metal that will react to a magnet.
a disposable fork	wood	metal	Wood is biodegradable, whereas metal is not. Metal also costs a lot more so is more wasteful to throw away.