

Dear Parents/ Carers,

Please can you help your child to prepare for this terms topic 'Up, Up and away' by helping them to learn the key vocabulary and the facts on this sheet to support their learning in Science and Design Technology lessons.

Thank you for your support

Year Two Staff



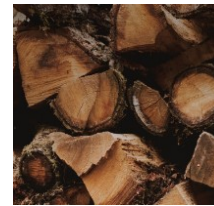
## Year Two Knowledge Organiser

### Autumn One

#### 'Up, Up and Away'



## Properties of materials.



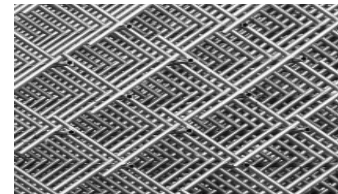
Wood: hard, stiff, strong, opaque, can be carved into any



Glass  
Waterproof,  
Transparent,  
hard



Plastic: strong, waterproof. Can be made flexible if stiff.



Metal: strong, hard and easy to wash.



Fabric: soft, flexible, hard wearing, can be stretchy, warm and absorbent.



Squash an object by pushing both hands together.

Bending an object by grabbing both ends of the object and bring the ends inwards together.

Twist an object by turning your hands in opposite direction.

Stretch an object by pulling your hands slowly apart.



Materials	Materials are what an object is made from.
Suitability	Suitability means having the properties which are right for a specific purpose.
Properties	This is what a material is like and how it behaves (soft, stretchy, waterproof)

# Design and Technology unit on flight

Axle	A long straight rod which connects to the chassis.
Axle holder	This holds a free spinning axle steady and is connected to the chassis.
Chassis	The body of the vehicle.
Design Criteria	The goals of the project stating what the finished model needs to have included.
Jinks corner	A triangle that can be glued onto two pieces of wood to hold them together.
Masking tape	A tape that can be used to cover plastic which allows paint to adhere (stick) to it.
Measure	Using a ruler in centimetres (cm) to know how large each component needs to be.
Model	A practise version that lets you test out your ideas to see how it will look and work.
Wheel	A circular object that turns around. It can be fixed to the axle or be free spinning by having washers placed around it on the axle. The wheel allows the vehicle to move along the ground.



Bi-plane



Jet plane

How do wheels move?  
The wheels need to be round and balance the body of the vehicle.



The wheels need to be fixed to the axle.

The wheels can be fixed and the axle can be free spinning by using an axle holder or the axle can be fixed and the wheels are free spinning



wheel

axle



A fixed wheel on a free spinning axle.

