

In this unit: Pupils will investigate different materials and their properties. They will use their findings to help Buzz Lightyear decide which materials he should use to make his astronaut objects. Pupils will learn the names of the planets in space and that they orbit the sun.

Children should already know:

- that simple tools can make changes to materials
- that there are similarities and differences between materials
- that some materials can be manipulated to a planned effect.

At the end of this unit, children will know:

- that objects are things that you can touch or see.
- that objects are made from materials and can name many of these materials.
- that some materials are natural and some are man-made.
- the properties of everyday materials.
- the names of the eight planets in the solar system
- that planets are spherical in shape and that they orbit the sun

Pupils could investigate:

- sorting natural and man-made objects.
- whether objects will protect the astronaut

Key Questions:

- which material would be best for ..... and why?
- is this material natural or man-made?
- which material is this object made out of?
- why is ..... not a good material for ....?

### Natural and Man-Made Materials

Natural Materials			Man-Made Materials		
chalk	sand	organic oil	concrete	glass	nylon
leather	iron	gold	paper	synthetic rubber	steel
cotton	wool	wood	plastic	rayon	polyester
natural rubber					

### OPPOSITES



Key Vocabulary	
absorbent	material that soaks up liquid easily
dull	a colour or light that is <b>not</b> bright
glass	a hard, transparent material
hard	cannot easily be squashed, bent, cut or scratched
man-made	things that are created by people
material	the thing that something is made from
metal	a hard substance such as iron, steel, gold or lead
natural	things that exist in nature and are not made by people
opaque	an object or liquid that you cannot see through
plastic	a material which is light in weight and does not break easily
properties	what a material looks like, feels like or how it behaves
rock	the hard substance which the earth is made of
rough	uneven and <b>not</b> smooth
shiny	things are bright and reflect light
smooth	no roughness, lumps or holes
soft	can be easily squashed, bent, cut or scratched
stiff	is firm and does <b>not</b> bend easily
stretchy	something that is slightly elastic
strong	cannot easily be broken or changed
transparent	an object or liquid that you can see through
water	a clear liquid that we drink and comes out of the tap
waterproof	does not let water pass through it
weak	can be easily broken or changed
wood	the material which forms the trunks and branches of trees
earth	the planet that we live on
orbit	the path planets take around the sun
planet	a large, round object in space that travels around a star
spherical	round in shape like a ball
star	a large ball of burning gas in space
sun	the largest star in our solar system – the centre

