

# Year 7

## Reuse, reduce and recycle!

Pupils learn all about the term's biomimicry and biomorphic design. Using a more sustainable practice, pupils investigate the importance of sustainability to produce a small product.

Keywords	Key skills	Equipment/ processes used/ materials
HPDE Recycle Sustainability Life cycle analysis. Biomimicry Inspiration LED Evaluation 6R's Life Cycle Assessment	Sustainability Hand tools and finishes User wants Research Understanding the world around them	Milk bottles Bottle tops (HDPE) Panini press Teflon sheet Silicon oven gloves Safety glasses Key ring Moulding/ forming Finishing Pillar drill

## Tangram

Pupils will learn about timbers and their classifications and uses. Apply knowledge of laser cutting to materials and produce a game popular in many cultures.

Keywords	Key skills	Equipment/ processes used/ materials
Soft wood Hard wood Tenon saw Timber Pine Acrylic Laser cutting/ 2D design CAD/CAM Vacuum form J.Hacksaw Butt/mitre joint	Hand tool skills Measuring and accuracy Creativity in design and imagination Laser cutter 2D design design	Timber- pine Junior hacksaw Try square Bench hook Mitre block Paint/pens String

## CRUMBLE

Pupils explore the program crumble to design and work a small moving product in groups.

Keywords	Key skills	Equipment/ processes used/ materials
Circuits LED Motor Systems Input	Knowledge of programs/ systems	Laptops Crumble kits Coding/ programming

## BLOCK BOTS

Pupils learn about timbers and their classifications and uses.

Keywords	Key skills	Equipment/ processes used/ materials
Soft wood (coniferous) Hard wood (deciduous) Tenon saw Timber Pine Pillar drill Countersunk Blind hole	Hand tool skills Measuring and accuracy Creativity in design and imagination Health and safety/ risk assessment	Timber- pine Tenon saw Try square Bench hook Pillar drill Paint/pens