

# KS3 D&T Software, equipment and material requirements

Unit	Software	Equipment, materials or ingredients
Innovation through iterative design		Class set of paperclips, a range of tools and materials for modelling e.g. craft knives, scissors, cutting mats, glue gun, lightweight card, paper, semi-transparent materials/filters, mirrored acrylic, corrugated card and a class set of low cost battery powered/rechargeable lights.
Mechanical systems and movement		A basic range of workshop tools and facilities. Real examples of working mechanisms.
Principles of nutrition and health		Suggested foods for tastings. Knives and appropriate coloured chopping boards, utensils, scales, basic small appliances, grater, kitchen paper or tea towels for drying salad leaves after washing, bowls, plastic wrap. Basic ingredients - oil, vinegar, and seasonings etc.
Designing through sketching and modelling	SketchUp	A variety of drawing tools, pens, pencils, rubbers, rulers, paper, grid paper etc. A selection of modelling materials and equipment including scissors, craft knives and glue sticks. Hot glue guns are advised but not necessary.
3D Printing and prototyping	CAD modelling package: AutoDesk Inventor or Fusion360	3D printer.
Programming microcontrollers with Circuit Wizard	Circuit Wizard 3.5	Genie Activity kits and Genie download cables, Further details within the Teaching Guide.
Problem solving		A handling collection of a range of household products, blackout goggles. Some Polymorph, Cool-morph™, Sugru, Plasticine, Blu Tack or similar.
Building a food repertoire		Tasters for class, pre-printed Recipe templates and a few Recipe template examples, basic ingredients and kitchen equipment.
Forces and stresses		A range of materials including A4 paper, card, card tubes, sticky tape, glue, hole punch. Other optional materials could include string, pipe cleaners, straws, corrugated card.
Functionality and aesthetics		A range of everyday products for aesthetic comparison, if possible example citrus squeezers, a class set of pencils and colours for sketching, rough paper for initial ideas sketches, paper for origami and a range of tools and materials for modelling.

For full details, refer to the 'Suggested resources' section of the Teaching Guide in the free lesson for each Unit