

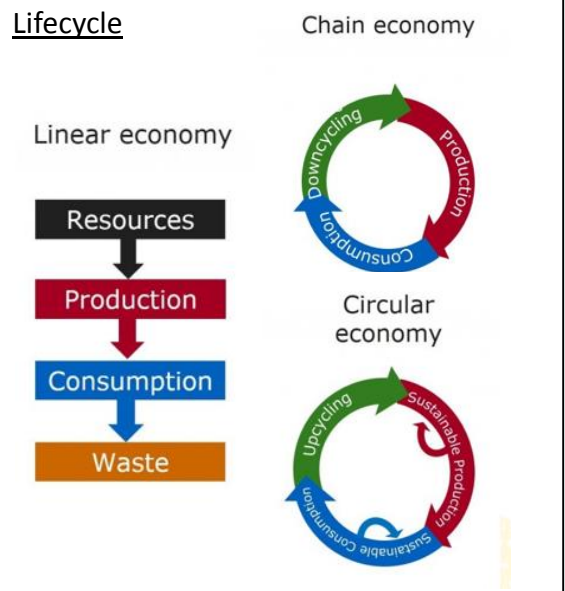
Y9 Recycle it Challenge - Sustainability, SMSC and the 6Rs Knowledge Organiser

Keywords in textiles

A	Applique / Aesthetics
B	Buttons / Batch production / Batik / Bonded fabrics / Breathable fabrics / Biodegradable / Bobbin
C	Cotton / CAD CAM / Components / Colour / Construction
D	Decorative stitches / Design / Dyeing / Disassembly
E	Design brief / Durability
F	Embroidery / Evaluation / Elasticity / Eco-Design
G	Embellishment / Embossing /
H	Fibres/ fluorescent fabrics / Functionality / Fabric crayons
I	Fastenings / Felt / Flammability
J	Gathering / Grading
K	Hand stitching / Health & Safety / Hems / Handle
L	Ideas / Interfacing / Inspiration / Inks / Iron
M	Lace / Laminated fabrics / Leather / Linen
N	Machine stitching / Microfibres / Manequin /Mood boards
O	Natural fibres / Natural fibres / Needles / Nylon
P	Overlock / Organic
Q	Patchwork / Pattern / Pattern cutting / Pile / Phosphorescence
R	Pigment / Polyester / Pocket / Pleat / Printing / Pressing
S	Recycling / Regenerated fibres / Research / Rayon / Reflective
T	Satin / Scissors / Sustainable / Screen printing / Sewing machine / Shade / Stencil
U	Tailors chalk / Tape measure / Testing / Texture / Threads
V	
W	Tie-Dye / Trends / Tolerance / Tailored / Transfer printing
Z	Weave / Webbing / Wool / Water-proofing Zip



Fashion Drawings



Manufacturing Diary

<p>TOP</p> <p>1. For all the 3D printed components, exported my CAD drawings as .stl files then opened them on a machine to be printed. I have a total of ten 3D printed components.</p> <p>2. I spray painted two of 3D printed components. I chose two different blues that suited my colour scheme.</p> <p>3. Three components needed to be laser cut so I exported my CAD drawings as .dxf files and loaded them on a machine to be laser cut.</p> <p>4. The printed components were banded together on the belt sander then had to be sanded with Carbide 3i and the polypropylene had to be filled on the inlets.</p>	<p>MANUFACTURING</p> <p>1. I cut four 40x20x20mm wood blocks with a tenon saw then I drilled the holes for the dowels and acrylic supports. After this, I sanded both pieces with sandpaper till it was smooth enough for use.</p> <p>2. The dowels were cut to length of 235mm with a coping saw then glued with PVA glue into the holes in the wood blocks.</p> <p>3. I sanded the sides of the sides of the base so the dowels were flush into the wood. Then I sanded with Carbide 3i and left. When it was dry, I sanded four feet to the rearward blocks and sanded the four support brackets.</p> <p>4. I cut four acrylic rods with a coping saw and sanded the edges with the disc sander so they were smooth.</p>	<p>ASSEMBLY</p> <p>1. The polypropylene officer is attached to the shade with four nuts and bolts. These are then attached to the printed components with four nuts and bolts.</p> <p>2. The four corner clips slide onto each corner and fit above the corner holes. The light bracket just sits inside the shade.</p> <p>3. The base is sanded, assembled and sanded needed to fit the four acrylic rods into the support brackets and then to the top support clips.</p>
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SUMMARY: My manufacturing diary records the processes to make my light including the different programmes, tools and equipment needed. It shows how it was made and also how it was finally assembled to complete the light.

The 6 Rs
















- Rethink** – Do we make too many products? Design in a way that considers people and the environment.
- Refuse** – Don't use a material or buy a product if you don't need it or if it's bad for people or the environment.
- Reduce** – Cut down the amount of material and energy you use as much as you can.
- Reuse** – Use a product to make something else with all or parts of it.
- Recycle** – Reprocess a material or product and make something else.
- Repair** – When a product breaks down or doesn't work properly, try to fix it.



SMSC Influences

- Cultural:**
- Is any religious or ethnic group likely to be offended?
 - Is the product appropriate for the society in which it will be used?
 - Is the product suitable for men and women?
 - IS the product suitable for the age range targeted?
- Economic:**
- What impact does the product have on jobs. Create or reduce work?
 - What are the working conditions for employees involved in making the product?
 - Who profits from the technology? Fair deal or exploitation?
- Environmental:**
- Does the product use many different material types?
 - Does the product cause pollution?
 - Are the materials used renewable or non-renewable?
 - Have any habitats been damaged in extracting and producing the product?
 - Can it be reused or recycled or will it end up in landfill?
- Social:**
- Is the product age/gender appropriate?
 - Does the product have positive or negative results for people living elsewhere in the world?
 - Does it improve the life for those with a disability?
 - Does the product make life better for those who use it?
 - Does the product make life better for those who make it?

Equipment & Key Terms

Needle		Used to hand sew fabric and creating embroidery designs. The 'eye' of the needle is where the thread is fed through.	Over locker		A electrical machine that neatens the edge of fabric to prevent fabric from fraying.
Pins		Used to hold fabrics in place when sewing, with an 'in/out' motion.	Aida Fabric		Fabric used to create embroidery designs.
Machining Thread		Used to sewing fabrics together, either by hand or with a sewing machine.	Pattern		Used as a template for cutting out pieces of a textile product.
Fabric Shears		Used to cut fabrics and threads only, not paper.	Seam Allowance		Added to pattern to ensure that the products ends up in the correct size.
Embroidery Scissors		Used to cut delicate work into fabrics and trim threads.	Fabric		Used to create a range of different products, including toys & clothing. Comes in a range of different lengths, widths, colours, finishes & patterns. Can be either Natural or Man-made.
Embroidery Thread		Comes with 6 threads intertwined that can be 'split' to reduce the thickness. Used to create decorative stitches on products.	Ironing/Pressing		Method of removing creases from fabrics to give products a better finish.
Sewing Machine		A electrical product that is used to sew fabrics together securely. The machine can produce a range of stitches including straight & zig-zag.	Design		A process that is completed to communicate your ideas clearly.
Tape Measure		Used to measure fabrics and the human body to help make patterns accurate to the desired size.	Colour Wheel		Using knowledge of colour to make your product stand out and appeal to others.