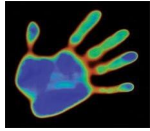
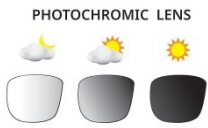




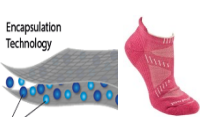
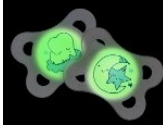
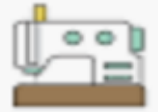















Year 7 Textiles - Design and Technology



SMART MATERIALS	Material	Example	Properties
	Thermo chromic		Changes colour with heat
	Photo chromic	PHOTOCHROMIC LENS 	Changes colour with light
	Memory shape alloy		Metal that returns to original shape
	Hydro-chromic	 Wet = colour Dry = white	Changes colour in water

Modern MATERIALS	Material	Example	Properties
	Kevlar		Very strong and resists cuts, tears.
	Nomex		Heat and fire resistant
	Micro-encapsulation	Encapsulation Technology  Antibacterial to stop feet smelling	Tiny beads encapsulated with liquid e.g. antibacterial
	Phosphorescent		Glow in the dark

Equipment			
 Sewing machine	 Thread	 Needle	 Scissors
One person at a time. Keep fingers away from moving parts. Use slowly and steadily.	 Pins	 Button	Carry with blade together. Always cut on the table away from fingers. Return to scissor rack when finished.
 Stitch ripper	Pins and needles are kept in containers. Use carefully pointing away from fingers and body.	 Pattern	 Iron
 Tape measure	 Zipper	Pattern pieces are used to make paper templates before cutting fabric out.	Extremely hot. Always ask before using. Turn off after use. Store hot plate down on rack.

Hand Sewing		
 Running Stitch	 Back Stitch	 Whip Stitch
Running stitch is quick and easy	Back Stitches are strong and look neat	Whip stitches are used to finish and neaten edges.
More Key words: Seam - joining two separate pieces of fabric together. Hem - fold on the edge of fabric which is sewn down making the edge look neat. Fray - the yarn coming away at the edge of curt fabric. Dyeing - when the fabric colour is changed by soaking in water and fabric dye.		

NATURAL	
Natural fibre from a plant	Cotton Used for making jeans, T-shirts and towels. • Cool to wear • Very absorbent • Dries slowly • Soft • Creases easily 
Natural fibre from a plant	Linen Used for summer clothing, tea towels and table cloths. • Very cool to wear • Very absorbent • Dries quickly • Stiffer than cotton • Creases badly 
Natural fibre from a plant	Bamboo Used for clothing and mixed with other fibres like spandex. • Cool to wear • Very absorbent • Soft • Sustainable (environmentally friendly) 

SYNTHETIC	
Synthetic Fibre	viscose Used for shirts, dresses, linings. • Low warmth • Absorbent • Soft • Good drape • Not durable • Creases easily 
Synthetic Fibre	Nylon Used for sportswear, socks, seat belts. • Warm to wear • Absorbent • Breathable • Soft or coarse • Can shrink • Durable 
Synthetic Fibre	Polyester Used for raincoats, Fleece jackets, medical textiles. • Low warmth • Non-absorbent • Dries quickly • Soft • Very durable • Crease resistant • Can be recycled 