

Vocabulary: Developments in new materials	
Modern materials	
Modern materials	Developments made through the invention of new or improved processes.
Graphene	A form of carbon consisting of planar sheets which are one atom thick, with the atoms arranged in a honeycomb-shaped lattice.
Metal foams	A cellular structure consisting of a solid metal (frequently aluminium) with gas-filled pores comprising a large portion of the volume.
Titanium	A hard silver-grey metal, used in strong, light, corrosion-resistant alloys.
LCDs	LCD (liquid crystal display) is the technology used for displays in notebook and other smaller computers.
Nanomaterials	A material having particles or constituents of nanoscale dimensions, or one that is produced by nanotechnology.
Smart materials	
Smart materials	Designed materials that have one or more properties that can be significantly changed in a controlled fashion by external stimuli, such as stress, temperature, moisture, pH, electric or magnetic fields.
Shape Memory alloys	If a part made from a shape-memory alloy (SMA) is bent out of shape, when it is heated above a certain temperature it will return to its original shape.
Thermo-chromic	Change colour as the temperature changes.
Photochromic	Change colour according to different lighting conditions.

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Composite materials

Composite materials	A material made from two or more materials with significantly different physical or chemical properties that, when combined, produce a material with characteristics different from the individual.
GRP	Glass-reinforced plastic (GRP), is a composite material or fibre-reinforced polymer made of a plastic reinforced by fine fibres made of glass.
CRP	Carbon fibre reinforced plastic (CFRP or CRP), is a very strong, light and expensive composite material or fibre-reinforced plastic.

Technical textiles

Conductive fabrics	A conductive textile is a fabric which can conduct electricity. Conductive textiles can be made with metal strands woven into the construction of the textile.
Fire resistant fabrics	Fire-retardant fabrics are textiles that are naturally more resistant to fire than others through chemical treatment or manufactured fireproof fibres.
Kevlar	A synthetic fibre of high tensile strength used especially as a reinforcing agent in the manufacture of tyres and other rubber products.