

GCSE: Design and Technology Year 10 Mock Exam Revision Plan

Revision topic: Design and technology and our world

http://www.technologystudent.com/despro_flash/NEW_GCSE3.html

http://resource.download.wjec.co.uk.s3.amazonaws.com/vtc/2016-17/16-17_1-4/website/index.html

Design Technology and Our World.
<ul style="list-style-type: none">• The impact of new and emerging technologies on industry and enterprise:• market pull – responding to demands from the market;• technology push – development in materials and components, manufacturing methods;• consumer choice – consumers wishing to own the latest technologies/products.
<ul style="list-style-type: none">• The Product Life Cycle.• Life Cycle Analysis to determine the environmental impact of a product.• Fair-trade policies and carbon footprint.• Ecological footprint.
<ul style="list-style-type: none">• Global production and its effects on culture and people.
<ul style="list-style-type: none">• Legislation to which products are subject.• Consumer rights and protection for consumers when purchasing and using products.
<ul style="list-style-type: none">• Moral and ethical factors related to manufacturing products and the sale and use of products.• Sustainability; meeting today's needs without compromising the needs of future generations.• The SIX R's of sustainability; rethink, reuse, recycle, repair, reduce and refuse.• The importance of sustainability issues and environmental issues when designing and making.• Social, cultural, economic and environmental responsibilities in designing and making products.
<ul style="list-style-type: none">• Types of renewable and non-renewable energy sources: wind, solar, geothermal, hydroelectric, wood/biomass, wave, coal, gas, nuclear and oil.• Issues surrounding the use of fossil fuels: coal, oil and gas.
<ul style="list-style-type: none">• The advantages and disadvantages of renewable energy sources.• The use of renewable energy sources in modern manufacturing production systems: the use of solar panels and wind turbines in manufacturing sites.• Renewable energy sources for products: wind-up and photovoltaic cells.• Energy generation and storage in a range of contexts: motor vehicles (e.g. petrol/diesel, electricity) and household products (e.g. battery, solar, mains electricity).
<ul style="list-style-type: none">• Advantages and disadvantages of using computer aided design (CAD).• Advantages and disadvantages of the use of computer aided manufacture (CAM).• How CAM equipment can be used in a variety of applications: CNC embroidery, vinyl cutting, CNC routing, laser cutting and 3D printing.