Curriculum on a Page
Year 9 GCSE Design and Technology

Term One

What we will be learning (subject knowledge)

What is design and technology and how does it affect our lives?
How do we identify a target market and their needs?
How do we create and develop ideas?
Understanding how enterprise and crowd funding can support ideas.
How to apply practical skills – competition entries

How we will be learning

- Working towards the Design Ventura brief set by the Design Museum and entering the competition.
- Working in teams to identify a target market and their need and to develop ideas to meet this.
- Mini practical tasks exploring possible manufacturing methods
- Home learning tasks relating to core knowledge and individual task relating to the competition brief.
- Disassembly-investigation, how are things made.

Try this at home

Investigate the work of design museum regular exhibitor Philippe Stark as a design influence for possible products: http://www.starck.com/#!
Investigate the design museum and their online gift shop to gather inspiration for possible products: https://designmuseumshop.com/

Term Two

What we will be learning (subject knowledge)

What different categories of materials are there?
How do we select materials that are appropriate for products?
How do we make products sustainable and ethical?
How can we use CAD/CAM and CNC machinery to manufacture products?

How we will be learning

- Focus practical task and investigation – Crazy Maze Project
- Short practical investigations
- Product investigation and disassembly
- Case study investigation
- Home learning tasks relating to core knowledge and understanding

Try this at home

Explore the key material areas and properties for specific materials using the resources – http://www.technologystudent.com/despro_flsh/NEW_GCSE3.html

Term Three

What we will be learning (subject knowledge)

How to design and make a product – key designer influences
Manufacturing processes
Mechanisms and movements
Renewable energy and how it can be used within products

How we will be learning

- Focus practical tasks and investigation – pewter casting and clock project
- Short practical investigations
- Product investigation and disassembly
- Case study investigation
- Home learning tasks relating to core knowledge and understanding

Try this at home

http://www.bbc.co.uk/schools/gcsebitesize/design/systemscontrol/mechanismsrev1.shtml
http://www.channel4learning.com/sites/gcsease/engineering/media/docs/Programme3_Mechanism_Chooser_chart.pdf
https://www.britannica.com/topic/list-of-art-and-design-movements-of-the-20th-century-2004700