KS3 LEARNING JOURNEY

GSCE DESIGN AND TECHNOLOGY EDEXCEL

OR

3D DESIGN AQA

10 & 11

Design and Make – Mini NEA – 18 lessons

Pupils will have the opportunity to produce a mini portfolio. This will help to ensure the correct option is selected halfway through year 9. Research and design ideas will be user centred, further investigative work into polymers will look at industry practices.

Pupils will make an electronic laser cut and engraved night light with a softwood base. The product will be evaluation by the user and pupil.

Design and Make- Electronic Bag – 9 lessons

Pupils will design and make a drawstring or tote bag which will use electronic circuit.

Innovate challenge - 6 lessons

Collaboratively pupils will brainstorm possible products to solve/help a problem of their own choice. Each team member will have a different area of focus. All will then e entered for submission at the V and A Innovate

V&A

9

Pupils choose options.

History of Design – 3 lessons

Digital timelines exploring the 20th Century design movements.

~ British designers – 6 lessons

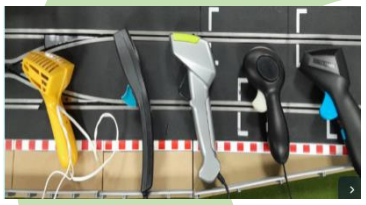
Pupils will digitally research British Designers. They will then choose one designer to design and make a trophy for. Using 2d design and the laser cutter.

~Design and Make- 6 lessons

Properties of wood, origins and classification will be introduced. Pupils will make a kitchen roll holder/mug tree.

***Energy – 3 lessons**

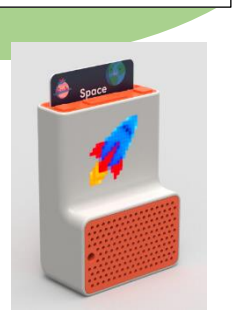
Pupils will research different types of energy. Key words and topics will be introduced. Sustainability/finite resources. How is it made, stored and distributed.



INSPIRED BY INDUSTRY

***Design and Make – (continued) 9 lessons**

One toy/game idea will be made using mixed materials. All pupils will construct a fabric case to contain their product.



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~ Design -inspired by industry. Controller design – 6 lessons

Design a controller for a games station. Introduction to ergonomics. Designs will be drawn onto cad software.

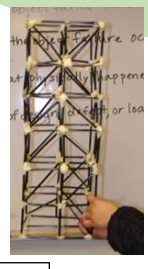
***Design and make – inspired by industry/Toys – 3 lessons**

Pupils will create design ideas after collecting user centred research.

INSPIRED BY INDUSTRY

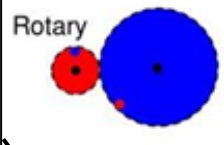
***Mechanisms and Motion – 3 lessons**

Pupils will research and produce a digital timeline. Materials will be revisited and combined with Inventions that changed the world.



***Structures = 3 lessons** Key vocabulary will be introduced. Design challenges will encourage problem solving and teamwork.

~Mechanisms and Motion = 3 lessons Introduction to motion and simple



~Design and Make – 6 lessons

Metals will be introduced and explored. Properties, origin and classification. Brass keyrings will be designed and hand shaped.

~Design and Make – 3D printed keyring = 6 lessons

Tinker cad will be introduced alongside materials properties, origin and classification of polymers.

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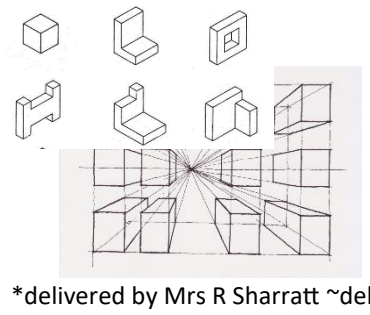
***Design and Make – Inspired by Industry/Paper = 6 lessons**

INSPIRED BY INDUSTRY

Taking inspiration from the National History Museum pupils will be introduced to paper engineering.



Drawing Skills = 5 lessons

Isometric, single point perspective, orthographic and oblique drawing methods will be introduced and practiced.

***Completion of digital base line assessment. = 1 lesson**

GO

***Design and Make – Textiles and Electronics = 6 lessons**

Inspired by the day of the dead festival in Mexico. Fabric badges will introduce material properties, origin and classification. User focussed design, hand cutting and sewing skills, sew able electronic circuits and the use of LED lights.

*delivered by Mrs R Sharratt ~delivered by Mr I Pugh