HOPE HIGH (Design Technology) LEARNING JOURNEY

SHOW THAT......

CV Writing for apprenticeships

NEXT STEPS

Preparation for College

Mentoring KS3 Students

EXAM

Re-cap and recall taught content of knowledge and understanding from year 10

Evaluate their project using a range of techniques and hand in portfolio for final assessment.

Investigate industrial production techniques for the manufacture of their ideas

Primary and secondary investigation/research on AQA set challenge

YEAR 11

Exam Preparation

Non Examined Assessment

Year 10 mock exam prep.

Working through past papers and exam technique.

Model and produce Prototype(s) for their chosen designs. They will use a systems approach to their designing. Manufacturing Production Techniques. Including Industrial Manufacturing

Explore and investigate their design ideas for AQA set project using iterative and collaboration design techniques

Writing a design brief and specification.

Materials and their working properties.

Energy generation and distribution including mechanical devices

Using Sketching techniques. 2D and 3D. Isometric, perspective and Orthographic

Tools, Equipment & Processes used in Manufacturing.

Design strategies including Iterative and collaboration.

Practical Skills

Students Begin AQA GCSE Design Technology

Knowledge and Understanding

Design Skills

Prototype production of a number of mini projects

YEAR 10

New and Emerging Technologies – E.g. 3D Printing, CAD/CAM

Environmental Issues in Design. 6R's and sustainable design

Investigate the work of 2 companies. Apple and Under Armour

Looking at the work of other designers including Phillipe Starck and Norman Foster

Students will understand how more advanced electronics can be used in products to respond to changing conditions E.g. Light and Movement.

Students will evaluate features of products that can be recycled or will degrade.

Students will show a greater degree of independence and accuracy when making products.

Students will draw on a wide range of techniques including 2D and 3D CAD & 3D sketches when designing products.

Pupils will know about some of the different regulations that apply to the workshop and how these relate to the workplace.

Technical Knowledge

Evaluate

Make

Design

Health and Safety

YEAR 9

Students will understand how mechanical systems can be used to create movement and transfer force. E.g. Brakes and gears on a bike.

Students will evaluate their products and the products of designers against a specification.

Students will create plans for making products that include steps to manufacture in the correct order.

They are able to use a range of tools and equipment to assemble and combine materials in different ways.

Students will take inspiration from past designers when creating ideas for products

They will be able to test their product against its intention/success criteria.

Students will generate a list of success criteria for their designs.

Students are learning the technical names for materials and their properties

Demonstrate consistent knowledge and attitudes to working safely in the workshop

They are becoming confident when communicating ideas using Design software, sketches and words to express their thinking.

They are able to verbally plan a sequence of steps for manufacturing a series of products.

Health and Safety

Design

Make

Evaluate

Technical Knowledge

They can come up with solutions to design problems by using inspiration form their interests.

They are able to work with some accuracy and developing independence when manipulating and combining materials..

They will be able to suggest alternative materials and methods of manufacture for their chosen idea.

Students are beginning to recognize the impact of collecting and processing materials can have on the environment

Verbally say which idea they are going to go with and why when designing products.

Work with wood, plastic and card when making products

With help Use basic CAD Functions to design products 2D½ DESIGN

Use of PPE

Using tools and equipment safely

YEAR 8

Evaluate

Make

Design

Health and Safety

YEAR 7

Verbally say what has worked well and what they could do better and why, when making products.

With help, can use hand tools and machinery with some independence to cut and join. materials.

Use basic sketching/drawing skills to design products

Workshop Behaviours

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products they value & solve real and relevant problems.