

# Teaching and Learning Content: Design and Technology

Year Group: 11

Spring Term 1 (2023)



## Topics:

- NEA – Non Examined Assessment
- Theory of core and specialist technical principals. Designing and making principals.

## Home Learning:

- NEA activities will require the communication of developed ideas in the format of Computer Aided Design. Evaluation and reflection on the manufacturing processes used will need to be considered and evidenced in the NEA portfolio.
- Example exam questions will be routinely issued as homework.

## Key Questions:

### • Developing design ideas:

How can CAD design iterations help to develop an idea?

Can 2D designs sufficiently communicate the design idea for production?

How can material selection and their working properties influence design ideas?

### • Manufacturing:

What materials and joining methods are suitable and are they available?

What specialist techniques and processes would be used in industry ?

### • Analyse and Evaluate:

How can the design be improved, are further iterations required?

Does the design impact on people and/or the environment?

## Diagnosis

- Do Now/Recall activities
- Retrieval activities from knowledge organisers like starter quizzes

## Therapy

- Teacher demonstrating/modeling the use of tools and equipment
- WAGOLL & WABOLL
- Peer to peer support in lessons

## Students will:

- Generate 2D and 3D CAD designs to communicate their design.
- Create a detailed orthographic working drawing.
- Select appropriate materials to use to construct a working prototype of their design.
- Embed images and annotation to explain the development of their design in their design portfolio that presents a logical design journey.
- Evaluate the process of design and manufacture of their working prototype.

## Testing

- Past papers, mark schemes and examiners' reports
- Students will be marked on the progression of their NEA.