

3D CAD – Creating bespoke product parts and part assemblies for our client.
NEA Client – Sketching, designing and developing a bespoke product for our client.

Theory – Specialist Technical Principals (STP).

Autumn - 1 Term

What are we learning about?

- You will learn about how to create assemblies for your bespoke product in 3D CAD,
- Develop designs for our client's bespoke product
- Assessment topic - Comfort.
- Material origins, stock form and sizes.



Why are we learning about it?

- In design Technology we work with a variety of materials so we can choose which one we prefer to work with for our final project. 3D CAD so we can create our own product.
- NEA - So we have the skills to independently research, design and develop a bespoke product for our client.
 - So we can understand and can answer exam questions on STP.



What new **KNOWLEDGE** will I gain?

- How to select materials, cut, form and shape them for your client's design.
- Drawing your own product on 3D CAD and potentially 3D printing parts.
- Designing and developing a unique product for an external client.
- STP theory for the exam.



How does this build on the **SKILLS** I already have?

- Skills from year 10 using 2D CAD.
- Sketching and modelling skills from Y10.



What new **SKILLS** will I develop?

- Designing and developing a bespoke product for our client.
- Answering GCSE exam questions on STP.



How does this build on the **KNOWLEDGE** I already have?

This will build on knowledge that you have gained in the first term of KS4 in school by applying this to a product you design and make.

3D CAD – Creating bespoke product parts and part assemblies.

NEA Client – Manufacturing & evaluating a bespoke product for our client.

Theory – Specialist Technical Principals (STP).

Spring - 1 Term

What are we learning about?

- You will learn about how to create assemblies for your bespoke product in 3D CAD,
- Manufacture and evaluate a bespoke product for our client.
- Scales of production, templates and jigs.



Why are we learning about it?

- In design Technology we work with a variety of materials so we can choose which one we prefer to work with for our final project. 3D CAD so we can create our own product.
- NEA - So we have the skills to independently make a bespoke product for our client.
 - So we can understand and answer exam questions on STP.



What new **KNOWLEDGE** will I gain?

- How to select materials, cut, form and shape them for your client's design.
- Drawing your own product on 3D CAD and potentially 3D printing parts.
- Making a product for an external client.
- STP theory for the exam.



How does this build on the **SKILLS** I already have?

- Using tools and equipment safely whilst working in your chosen material(s).
- Skills from year 10 using 3D CAD.
- Sketching and modelling skills from Y10.



What new **SKILLS** will I develop?

- Applying 3D CAD, 3D Printing, and CNC programming on a bespoke product.
- Making for a client on their bespoke product.
- Answering GCSE exam questions on STP.



How does this build on the **KNOWLEDGE** I already have?

This will build on knowledge that you have gained in the first term of KS4 in school by applying this to a product you design and make.