



Putteridge
High
School

Extended Learning

3D Design

Years 9, 10 & 11



3D Design

Year 9 – Autumn Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 9

Term: Autumn

Topic: Introduction to skill based learning

Learning Objectives

- Take responsibility for safe working
- Can give some general guidance for safe working
- Understand the difference between a design brief and a specification.
- Analyse the design brief and write out three requirements for your own specification.
- Following health and safety instructions.
- Accurately mark out and measure using the correct tools.
- To be able to describe different types of wood joints.
- Be able to list the differences between hard and soft woods.
- To be able to produce an isometric drawing

Extended Learning Opportunities

- Watch how to produce isometric drawings with rendering - produce drawings on isometric paper or plain paper following the step by step guide. Then hand to your teacher once completed.

<https://www.youtube.com/watch?v=XHvzuKslymI>

<https://www3.ul.ie/~rynnnet/keanea/iso1.htm>

<https://www.youtube.com/watch?v=yAazKQv2Eqk>

- Read the following information on the AQA website about three dimensional design.

<https://www.aqa.org.uk/subjects/art-and-design/gcse/art-and-design-8201-8206/subject-content/three-dimensional-design>



Putteridge
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3D Design

Year 9 – Spring Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 9

Term: Spring

Topic: Trinket boxes

Learning Objectives

- To increase awareness of health and safety in a potentially dangerous area.
- To develop knowledge and understanding of materials, tools, machinery and processes.
- To enable pupils to develop their practical skills.
- Select and use a range of tools, equipment and processes safely and accurately.
- Understand how to take account of working characteristics of materials and components and restrictions imposed by tools and equipment.
- Accurately measure, mark out and cut and material. High quality finishes produced.
- Effectively join a range of materials using advanced techniques.
- To evaluate work throughout the manufacturing process.
- To develop knowledge/ skills to enable achievement of a high-quality finish in practical work.

Extended Learning Opportunities

- Research what other materials could be used to make a trinket box and present this as a powerpoint to your teacher. Think about materials that are natural or man made.
- What other uses could a trinket box be used for in the modern day, produce a sketch to show your ideas. Then research different types of wooden joints and explain how traditional joints can be used to build wooden products.
- Attempt at making one of the mini projects from the following website <https://www.instructables.com/id/Woodworking-Projects-for-Beginners/>
- Have a go at making your own bird [table https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/all-about-bird-tables/making-a-bird-table/](https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/all-about-bird-tables/making-a-bird-table/)



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3D Design

Year 9 – Summer Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 9

Term: Summer

Topic: Design Movements

Learning Objectives

- Develop a basic understanding of different Design Movements
- Show an understanding of the Arts and Crafts movement
- Working as a team begin to apply that knowledge to creating different design ideas based on one of the movements.
- Develop their existing knowledge of different Designers & Design Movements
- Working as a team share that knowledge by creating inspiration boards based on one of those movements
- Develop knowledge of different design movements further than apply that knowledge to inspire and support others in creating visual boards.

Extended Learning Opportunities

- Visit the following web sites and comment on the differences and similarities between the different design movements. <http://www.stedmunds.org.uk/wp-content/uploads/2016/05/Design-Movements-Timeline.pdf>
- Gather information about each of the design movements and produce a poster, mood board, display or powerpoint on each; Arts & Crafts, Art Nouveau, Art Deco and Bauhaus
http://www.technologystudent.com/pdf12/rev_destijl1.html
<http://www.technologystudent.com/prddes1/deco1.html>
<http://www.technologystudent.com/prddes1/deco2.html>
- Visit the following websites for revision cards about Design movements.
<http://www.technologystudent.com/prddes1/artsandcrafts4.html>
http://www.technologystudent.com/prddes1/rev_card_nouveau1.html



http://www.technologystudent.com/prddes1/revcard_artdec1.html

http://www.technologystudent.com/prddes1/revcard_bauh1.html

- Have a day visit to the design museum in London <https://designmuseum.org> looking at the 'Arts and crafts movement'. Visit the museum at 224-238 Kensington high Street, W8 6AG, London



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3D Design

Year 10 – Autumn Term



Extended Learning Opportunities

Subject: Technology / Three dimensional design

Year: 10

Term: Autumn

Topic: Totem Pole

Learning Objectives

- To consider the many different Native American tribes and why we cannot treat them all 'as one'.
- To successfully create a range of observations using a variety of media.
- To create a successful mixed media development image using a range of different materials.
- To look at the concept of totem poles and discuss the symbol linking to tribes
- Students will create their own clay Totem pole after learning about the history and usage of tribes, and other clay building techniques.
- To highly develop a final piece idea by practicing a range of painting techniques from chosen images.

Extended Learning Opportunities

- Watch the following three clips and make notes to report back to your class
<http://www.native-languages.org/houses.htm>
<http://www.learnnc.org/lp/pages/3364>
<http://www.native-languages.org/totem.htm>
- Make a totem pole at home from recycled tin cans
<http://www.thecraftycrow.net/2009/11/tin-can-totem-pole.html>
- Visit and produce drawings of the Eagle and salmon
<https://mikepitts.wordpress.com/2017/04/05/britains-fabulous-totem-poles>
- Take a day visit to the Berkhamsted Totem Pole, Castle Street. Take photos and produce close up drawings. more information on the following website.
http://www.richardkeithwolff.co.uk/_photo_2823154.html



3D Design

Year 10 – Spring Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 10

Term: Spring

Topic: Easter Island head

Learning Objectives

- Research and produce a mini written and illustrated project or investigation into the work of Easter Island.
- To successfully create a range of observations using a variety of media.
- To develop and promote an awareness of the possibilities of materials for the purpose
- Students will be able to discuss how recycled materials such as cardboard can be used within design.
- Explore a range of available materials such as clay, wood, plastic, found/recycled materials and papier mache
- Experiment with clay surface techniques and explore a range of finishes
- Extend their understanding through documentation of the processes in a journal or notebook, using written annotation and technical language.
- extend their understanding of the structure of objects through the application of alternative drawing methods when working with, for example, wire, clay and cardboard

Extended Learning Opportunities

- Watch The mystery of Easter Island- Part 1
<http://www.youtube.com/watch?v=5DBTtC4J00Y>
- Read the following two articles and write a report on how the Easter Island heads got their hats. <https://gizmodo.com/ingenious-technique-explains-how-easter-island-statues-1826568241>
<https://www.express.co.uk/news/science/969166/Easter-Islands-statues-Chile-stone-heads-hats-Pukao-Rapa-Nui>
- Read and produce a presentation on why are the giant statues on a mysterious Pacific Island, then email to your class teacher <https://theplanetd.com/easter-island/>



3D Design

Year 10 – Summer Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 10

Term: Summer

Topic: 3D lettering – Mock exam

Learning Objectives

- Research effectively, explore and collect relevant information for their work
- Use materials and processes effectively to communicate their ideas and the meaning of their work
- Explain and evaluate their own and others ideas and progress, adapting and improving their work in response
- Compare and comment on the work of artists and relate these to their own and others work.
- Select relevant parts of information they have researched or been presented with and respond to this by experimenting appropriately to develop their work
- Use, experiment with and combine materials and techniques effectively to communicate their ideas and the meaning of their work
- Consider and discuss the ideas and methods used by artists and show that they understand the relevance of this to their own work.

Extended Learning Opportunities

- Complete these isometric tasks
<http://www.technologystudent.com/designpro/isocube1.htm>
<http://www.technologystudent.com/designpro/isocube4.htm>
<http://www.technologystudent.com/prddes1/drawtec2.html>
- Visit the websites for further information for Computer-aided design (CAD)
<https://www.tinkercad.com/#/>
<https://www.autodesk.co.uk/solutions/cad-design>



3D Design

Year 11 – Autumn Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 11

Term: Autumn

Topic: Component 1: Portfolio

Learning Objectives

- Students review, select and present their Portfolio for final submission in discussion with the teacher, ensuring that the component requirements are fulfilled.
- The design, prototyping and modelling or making of products, objects, and environments, using intellectual, creative and practical skills. Areas of study could include sculpture, ceramics, product design, jewellery design and 3D digital design.
- This is worth 60% of your total marks.

Extended Learning Opportunities

- Visit the following website for information about 3D design

<https://www.aqa.org.uk/subjects/art-and-design/as-and-a-level/art-and-design/subject-content/three-dimensional-designist>

- Research a designer and come up with a profile for them. Look at their influences and products or buildings they made. Explain why you like their design style.



3D Design

Year 11 – Spring Term



Extended Learning Opportunities

Subject: Technology - Three dimensional design

Year: 11

Term: Spring

Topic: Component 2: Externally set assignment (ESA)

Learning Objectives

- Students review, select and present their ideas for final submission in discussion with the teacher, ensuring that the component requirements are fulfilled.
- There's a separate externally set task paper for each title. A preparatory period followed by 10 hours of supervised time. It features seven tasks and you must complete one of them. You get preparation time. This is worth 40% of your total marks.

Extended Learning Opportunities

- Visit the following website for past exam paper from 2018
<https://filestore.aqa.org.uk/resources/art-and-design/AQA-8205-SQP.PDF>