Design & Technology Curriculum Plan Map 2024-2025

Ormiston Sudbury Academy

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS3						
Year 7	CAD / CAM Skills – PC Based. Students design and make a sea life mobile using 2D design which is then cut out on the laser cutter. Students also develop simple packaging for this product.	CAD / CAM Skills – PC Based. Students design and make a sea life mobile using 2D design which is then cut out on the laser cutter. Students also develop simple packaging for this product.	Biomimicry jewellery project Students learn about target markets and Biomimicry in order to create a piece of jewellery inspired by nature. Students make cardboard models of their final designs and packaging	Biomimicry jewellery project Students learn about target markets and Biomimicry in order to create a piece of jewellery inspired by nature. Students make cardboard models of their final designs and packaging	Biomimicry jewellery project Students learn about target markets and Biomimicry in order to create a piece of jewellery inspired by nature. Students make cardboard models of their final designs and packaging	Biomimicry jewellery project Students learn about target markets and Biomimicry in order to create a piece of jewellery inspired by nature. Students make cardboard models of their final designs and packaging
Year 8	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective	Board Game Project using Photoshop and CAD/CAM. Students develop skills and knowledge of a range of secondary sources to design and manufacture a board game on Colchester Zoo. Students will learn how to use Photoshop to create their game and their rules. Students will build on previous knowledge of CAD CAM as well as learning 3d modelling techniques to model their counters. Students will also learn how to draw in both 1 and 2 point perspective
Year 9	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. Students will build on modelling knowledge to develop a full scale model before manufacture.They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.	Product Design Technology Storage Product. Students develop knowledge on stock forms, manufactured boards, thermoplastics, hardwoods and softwoods to re-design a technology storage product. They are shown how to use standard components, adhesives. They are shown how to draw in orthographic and isometric on CAD and by hand. They use the pillar drill, basic hand tools to create their product that fits the needs and wants of their chosen user.
KS4						
Year 10	Book end project. – Students develop their knowledge on timbers, timber processes and finishes. Students also learn about types of joints and apply this knowledge into manufacturing a book end using finger joints.	Re-design plastics product project. – Students develop knowledge on types of plastics and plastic processes. Students learn about design fixation, SCAMPER and user-centred design and work collaboratively to develop a product that fits a given brief	Theory based- Knowledge for Exam Component Students develop knowledge and understanding of paper and boards, textiles and metals, their properties, uses and applications	Mock NEA project. Students are given a design context and work through some of the requirements needed for their Non-Examined Assessment.	Mock NEA project. Students are given a design context and work through some of the requirements needed for their Non-Examined Assessment.	Final Project. The final project counts towards 50% of students' final grade and is prescribed by the exam board. Students will be expected to work independently on their own project under specific time constraints using their acquired workshop, planning and 2D CAD skills.
Year 11	GCSE NEA/ Exam technique and revision	GCSE NEA/ Exam technique and revision	GCSE NEA/ Exam technique and revision	GCSE NEA/ Exam technique and revision	GCSE NEA/ Exam technique and revision	