

SUBJECT NAME



ALDER
Community High School

YEAR GROUP

Design Skills & Identifying Requirements		
Autumn	Composites - To know Health & Safety rules and workshop expectations - To know that design ideas are a key process in communication - To know what an isometric drawing is - To know what a two-point perspective drawing is - To know what fundamental design principles are - To know that design ideas should be solution focused - To know what a stakeholder is - To know what a primary user is - To know what users require based on wants/ needs - To know that a design brief is intrinsically linked to possible outcomes - To know that existing products inform potential improvements	Key Vocabulary Anthropometrics Ergonomics Aesthetics Isometric Orthographic Iteration User Stakeholder Design brief
	Assessment Students will be assessed on the Penguin Kettle Design sheet and Lamp Design sheet to develop their design presentation and communication skills.	ILS Using knowledge organisers create: - Flashcards - Knowledge drop - Mind map - Practice key vocabulary definitions
	How to help at home - Discuss the importance of following health and safety rules. - Encourage students to identify hazards and risks in everyday situations. - Practise sketching and drawing household objects in 3D.	Wider reading Research the Design Process and how designers develop products.



	- Support revision of key vocabulary using flashcards and quizzes. - Encourage students to explain how their ideas meet a design brief. - Look at everyday products and discuss how they have been designed to meet users' need	- Read about health and safety in workshops and manufacturing industries. - Explore examples of product design sketches and technical drawings. - Investigate how designers use modelling and prototyping to test ideas. - Research famous designers and inventors
	SMSC Social: Working cooperatively, sharing resources responsibly and communicating effectively with others. Moral: Understanding personal responsibility for health and safety and making safe choices in a workshop environment. Spiritual: Developing creativity, confidence and resilience through designing and problem-solving. Cultural: Exploring how products are designed to meet the needs of different cultures, communities and users.	Careers Links Games designer Programmer Interior Designer Joiner Architect Graphic Designer Illustrator Animator Engineer
Spring	Mini NEA & Material Theory	
	Composites - To know that design styles influence design ideas and outcomes - To know that design ideas are informed by the design brief - To know that empirical modelling is a method of communication - To know that design development should be informed by user feedback - To know that user feedback links directly to the iterative design process - To know that anthropometrics and ergonomics has an impact on the potential user - To know that the presentation of design ideas, including annotations, is a vital element of communication and explanation - To know that anthropometrics refers to human measurements - To know that ergonomics links to comfort and usability	Key Vocabulary Prototyping Primary Research Secondary Research Modification Annotation Anthropometrics Ergonomics Aesthetics Development Exploded diagram Timbers



	• To know that aesthetics links to the visual appeal of a product • To know what the categories of timber are • To know what standard components are and how they are used • To know where energy sources come from • To know the types of non-renewable energy • To know the types of renewable energy	Renewable Energy Sustainability Solar Wind Biomass Tidal Hydroelectric
	Assessment Students will complete a mock exam in line with OCR requirements based on taught theory. Students will be assessed on Mini NEA and Mock Exam using the OCR course structure of 50/50 to generate an overall grade.	ILS Using knowledge organisers create: • Flashcards • Knowledge drop • Mind map • Practice key vocabulary definitions
	How to help at home • Discuss the importance of attending additional catch up sessions to complete outstanding work. • Encourage students to attend P6 sessions. • Practise sketching and drawing household objects in 3D. • Support revision of key theory using flashcards and quizzes. • Encourage students to explain how their ideas meet a design brief and the issues they are attempting to solve. • Look at everyday products and discuss how they have been designed to meet users' needs.	Wider reading • Research the Design Process and how designers develop products. • Read about health and safety in workshops and manufacturing industries. • Explore examples of product design sketches and technical drawings. • Investigate how designers use modelling and prototyping to test ideas. • Research famous designers and inventors
	SMSC Social: Working cooperatively, sharing resources responsibly and communicating effectively with others. Moral: Understanding personal responsibility for health and safety and making safe choices in a workshop environment and the impact of sourcing materials.	Careers Links Games designer Programmer Interior Designer Joiner Architect Graphic Designer Illustrator Animator



	Spiritual: Developing creativity, confidence and resilience through designing and problem-solving in response to a design brief/ contextual challenge. Cultural: Exploring how products are designed to meet the needs of different cultures, communities and users.	Engineer
Summer	Official NEA & Material Theory	
	Composites - To know that a design brief is intrinsically linked to possible outcomes - To know that existing products inform potential improvements - To know that design styles influence design ideas and outcomes - To know that design ideas are informed by the design brief	Key Vocabulary Design brief Analysis Existing products Sketch Prototype Empirical modelling
	Assessment Students will be assessed at regular intervals when completing the official NEA in line with course assessments against the specification.	ILS Using knowledge organisers create: - Flashcards - Knowledge drop - Mind map - Practice key vocabulary definitions
	How to help at home - Discuss the importance of attending additional catch-up sessions to complete outstanding work. - Encourage students to attend P6 sessions. - Practise sketching and drawing household objects in 3D. - Support revision of key theory using flashcards and quizzes. - Encourage students to explain how their ideas meet a design brief and the issues they are attempting to solve. - Look at everyday products and discuss how they have been designed to meet users' needs.	Wider reading - Research the Design Process and how designers develop products. - Read about health and safety in workshops and manufacturing industries. - Explore examples of product design sketches and technical drawings. - Investigate how designers use modelling and prototyping to test ideas. - Research famous designers and inventors
	SMSC Social: Working cooperatively, sharing resources responsibly and communicating effectively with others.	Careers Links Games designer Programmer



	Moral: Understanding personal responsibility for health and safety and making safe choices in a workshop environment and the impact of sourcing materials. Spiritual: Developing creativity, confidence and resilience through designing and problem-solving in response to a design brief/ contextual challenge.	Interior Designer Joiner Architect Graphic Designer Illustrator Animator Engineer
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