Curriculum Map
Year 7

Design and Technology

Learning Aims and Curriculum Intent:

Design and Technology offers a broad and inclusive curriculum that has been meticulously designed for Year 7 to gain the foundational skills to be curious and inventive designers and makers. Pupils study Design and Technology on a rotation with Food Preparation and Nutrition, during a rotation pupils will focus on the Pop-up Book project and undergo a design process; analyse, research, design, plan, make, test and evaluate. They will then develop their manufacturing skills in a focussed practical task. During a rotation, pupils will complete four assessed, extended writing tasks that is an amalgamation of class work and homework, pursuing the theoretical principles and technical knowledge of design, whilst including cross curricular links and wider contexts involving culture and society.

Term	Content, Key Questions and Knowledge	Skills	Assessment
Michaelmas	**What is Graphic Design?** **1) How can we communicate without words?** • An introduction to Graphic Design • An introduction to how we communicate and present ideas • The different styles of typography • An introduction to why and how we analyse existing products **2) Can we use paper engineering to make learning fun?** • An introduction into paper engineering and prototype testing and evaluating prototypes • Iterative design – how and why do we develop our ideas? • Communicating a final design idea and presenting work effectively	Visual Communication Annotation explaining ideas Analysing the successes and negative aspects of existing products Peer assessment against a criteria (brief) Learning how to engineer paper to make moving mechanisms Developing design ideas using an iterative process Colour rendering in design Annotating ideas using key technical terminology and referring to research Selecting and using specialist tools and equipment to make a successful product	Product Analysis Pop-Up prototype testing Iterative design developments Final front cover design
Lent	**What are resistant materials and how are toys made?** **3) How do we cut and shape wood accurately and safely?** • An introduction into wood and its properties • What does health and safety look like in the workshop and why is it important? • An introduction to marking and measuring with accuracy • Shaping wood using machinery and hand tools **4) How is plastic moulded?** • An introduction to vacuum forming and its uses in commercial manufacturing • How can we increase aesthetic appeal using vinyl cutting/laser cutting? • What tests must be carried out in order for children to use our product?	Marking and measuring Using a coping saw to cut wood Using a disc sander to shape wood Vacuum forming plastic Using a scroll saw to shape plastic Using a pillar drill	Making Diary Evaluation of a final product
Trinity	**What is Graphic Design?** **1) How can we communicate without words?** • An introduction to Graphic Design • An introduction to how we communicate and present ideas • The different styles of typography • An introduction to why and how we analyse existing products **2) Can we use paper engineering to make learning fun?** • An introduction into paper engineering and prototype testing and evaluating prototypes • Iterative design – how and why do we develop our ideas? Communicating a final design idea and presenting work effectively	Visual Communication Annotation explaining ideas Analysing the successes and negative aspects of existing products Peer assessment against a criteria (brief) Learning how to engineer paper to make moving mechanisms Developing design ideas using an iterative process Colour rendering in design Annotating ideas using key technical terminology and referring to research Selecting and using specialist tools and equipment to make a successful product	Product Analysis Pop-Up prototype testing Iterative design developments Final front cover design

Trinity 2	**What are resistant materials and how are toys made?** **5) How do we cut and shape wood accurately and safely?** • An introduction into wood and its properties • What does health and safety look like in the workshop and why is it important? • An introduction to marking and measuring with accuracy • Shaping wood using machinery and hand tools **6) How is plastic moulded?** • An introduction to vacuum forming and its uses in commercial manufacturing • How can we increase aesthetic appeal using vinyl cutting/laser cutting? • What tests must be carried out in order for children to use our product? **End of year exam and feedback**	Marking and measuring Using a coping saw to cut wood Using a disc sander to shape wood Vacuum forming plastic Using a scroll saw to shape plastic Using a pillar drill	Making Diary Evaluation of a final product

Examples of Homework	Creating a mood board on a chosen theme, evaluating prototypes, creating a story board with illustrations of the pop-up mechanisms	
Key terminology	Aesthetics, Target Market, Iteration, Typography, Visual Communication, Annotation, Manufacture, Prototype, Testing, Analysis, Development, Mechanism, Ergonomics, Resistant Materials	
Super-curricular enrichment and scholarly extension	**Read:** *One Red Paperclip – Kyle Macdonald* **Watch:** *Dengineers – BBC iPlayer* **Listen:** *Smash Boom Best - Spotify* **Visit:** *The Museum of Brands (Notting Hil)l, The Design Museum (Kensington)*	
Useful websites	technologystudent.com ROBERT SABUDA - Home GCSE Design and Technology - AQA - BBC Bitesize	
Who can I contact?	**Head of Design and Technology**	Mr H Ibrahim, hi@forest.org.uk
	Teachers	Ms R Ghabaee, rg@forest.org.uk Mr J Luton-Nicholas, jln@forest.org.uk Ms J Hayes, jeh@forest.org.uk