Curriculum Map and 8 **Subject: DT: Approx 10 Week Rotation per project** **Year Group: 7**

	Year 7 Hang Up (Wood)	Photo Frame (Metal)	Year 8 Lever Toy (MDF)	Card
Content- WHAT will be learned? What previous learning can be linked? Why this order/**sequence**?	Students are introduced to the world of DT. They start with the very basics of learning what a design brief is and as the wood unit progresses they use tools and equipment to transfer ideas on paper into a completed wooden product. Students are encouraged to consider environmental issues and look into sustainability which carries on into KS4. Students annotate and analyse their work and begin to make decisions about how their product will be made in the planning and recording of manufacture stages. Once made the students test their product for suitability and function without being destructive and record their end results. Students carry out peer assessment and a final evaluation to determine what went well and what could be improved. A breakdown of the course is as follows: • Workshop safety • Evaluating existing products • Material Properties and Woods • Environmental Issues • Wood Joints • Tools • User requirements • Orthographic Drawing • Isometric Drawing • Technical specification • CAD • Planning • Evaluation and Peer Assessment	This time students are working with a new medium: metal. There is an initial knowledge starting point which is an information finding page. Students are asked to name metals and this is linked to the periodic table so that students are linking metals to science and to the correct identification of metals on the periodic table is logged. Students gain further experience using tools and equipment such as a jigsaw, pillar drill and a disc sander. Students research design movements such as Art Deco, Art Nouveau and the Arts and Crafts Movement. Students complete design ideas using orthographic design, they plan their making, produce their product and then carry out the testing. Students carry out a final evaluation and peer assessment to analyse their product. A breakdown of the course is as follows: • Research into metals and alloys • Workshop safety • Tools and Components • Mass production • Quality Assurance • Health and Safety • Environmental Issues • User Requirements • Orthographic Drawing • Isometric Drawing • CAD • Planning • Packaging • Testing • Evaluation and peer assessment	In Year 8 students delve deeper into the world of design and technology. Students explore mechanisms and how they work and they create a lever toy to demonstrate their learning in practice. They model in card first to test the functionality of their toy then research temporary and permanent fixings. Students then write their own design brief incorporating theme and function, motion, mechanism, size and materials to be used, tools, health and safety and any pre-manufactured items or materials. From this they then develop their initial ideas and then enlarge the toy in order to make it. This project links closely to KS4 where students follow the same processes to create a product but in more detail. A breakdown of the course is as follows: • Deconstructing Existing Products • Survey of user needs • Further Wood Joints and Fittings • Tools and Equipment • Finishes • User requirements • Further Isometric Joints • Perspective drawing • Orthographic Drawing • Detailed Planning • Further tools and equipment • Testing Evaluation and Peer Assessment	Working to a design brief again students research different types of printing including cad and cam, offset lithography and flexography. This time students make a list of user requirements to enhance their thinking about their initial ideas. Literacy is explored as students consider the wording inside their cards and the impact that meaningful words can have. The 6R's are explored creating a specific awareness of recycling and the impact this has on the environment and society, students are now designing with a global sense in mind where the future of our world is being taken into account. Finally, students evaluate their work using technical terms which will carry forward into KS4. • Design Situation • Primary user and Brief • Existing Graphic Products • CAD/CAM and Printing Techniques • User Requirements • Sketching • Typography • Technical Specification • Primary, Secondary and Tertiary Recycling • Rotary and Folding Mechanism • Designing **Oracy – a new project will be used (this project will be replaced. Used with year9. Worked well(futurologist will be the name of the project)** (This project is currently being trialled)
Skills- What will be developed?	The basics are taught in Yr 7 as this project is a foundation project used to introduce DT. Drawing Designing Ability to identify types of wood Ability to identify types of joints	Most students will not have had experience of using metals n Primary School so this project will be new ground. The skills learnt and explored here are those that will be developed into Yr 9, 10 and 11 with students building on them in terms of accuracy and	Skills are built on further to ensure students are getting a rounded experience. Skill levels vary for students and those that excel tend to consider taking this subject as an option as a GCSE. Mechanisms and Levers	Students explore skills that are closely linked to GCSE Yr9 in order to create a seamless transition from KS3 into KS4. CAD CAM User requirements

	Isometric crating Writing a specification Making using:	safe use. The use of tools can be quite daunting for some students so skill level will vary. Drawing Designing Ability to identify types of metals Making using: Glue gun Jigsaw Disc sander Pillar drill	Modelling using card Mechanisms Marking out Designing Quality Assurance	Designing to a brief Internal stand mechanism V Fold mechanism Rotary card mechanism
Key 'How'/'Why' Questions- What **powerful knowledge** will be gained? What areas/themes/concepts will be explored?	How a drawing develops into a design and a final product.	How the process of "Wasting Metal" (technical term) occurs. How a drawing develops into a design and a final product.	How to use different classes of levels to produce a product.	
SEND- how will support be seen? Seating plans? Simplified questions?				
Assessment- What? Why?	<u>Assessment for Learning:</u> • Evaluation and Peer Assessment • Self-Assessment of design booklet and made product	<u>Assessment for Learning:</u> • Evaluation and Peer Assessment • Self-Assessment of design booklet and made product	<u>Assessment for Learning:</u> • Evaluation and Peer Assessment • Self-Assessment of design booklet and made product	<u>Assessment for Learning:</u> • Evaluation and Peer Assessment • Self-Assessment of design booklet and made product
What **memory for learning** skills will be required- modelling? Concrete answers? Retrieval?	Modelling How to use equipment safely and accurately.	Modelling How to use equipment safely and accurately.	Modelling How to use equipment safely and accurately.	Modelling How to use equipment safely and accurately.
Literacy- reading, extended accurate writing and oracy opportunities	Literacy (Reading) At KS3 the project booklets cover literacy with extended reading as part of the super curriculum.	Literacy (Reading) At KS3 the project booklets cover literacy with extended reading as part of the super curriculum.	Literacy (Reading) At KS3 the project booklets cover literacy with extended reading as part of the super curriculum.	Literacy (Reading) At KS3 the project booklets cover literacy with extended reading as part of the super curriculum.
Numeracy/computing skills	Measuring accurately before cutting	Measuring accurately before cutting	Measuring accurately before cutting	Measuring accurately before cutting
Character development	Health and safety in the workshop Teamwork Sharing Waiting your turn	Health and safety in the workshop Teamwork Sharing Waiting your turn	Health and safety in the workshop Teamwork Sharing Waiting your turn	Health and safety in the workshop Teamwork Sharing Waiting your turn
Equality/Diversity opportunities	Equality and Diversity When designing for a target market group, user, and stakeholders it is key to consider all groups as part of the iterative design process. A good product will not just sell better and make more money it is culturally sensitive and morally right. Students will, at times, express themselves when designing whether it be flags from	Equality and Diversity When designing for a target market group, user, and stakeholders it is key to consider all groups as part of the iterative design process. A good product will not just sell better and make more money it is culturally sensitive and morally right. Students will, at times, express themselves when designing whether it be flags from	Equality and Diversity When designing for a target market group, user, and stakeholders it is key to consider all groups as part of the iterative design process. A good product will not just sell better and make more money it is culturally sensitive and morally right. Students will, at times, express themselves when designing whether it be flags from other countries, a group they	Equality and Diversity When designing for a target market group, user, and stakeholders it is key to consider all groups as part of the iterative design process. A good product will not just sell better and make more money it is culturally sensitive and morally right. Students will, at times, express themselves when designing whether it be flags from

	other countries, a group they belong to or the LBGT+ rainbow. Staff appreciate the pupil's individuality.	other countries, a group they belong to or the LBGT+ rainbow. Staff appreciate the pupil's individuality.	belong to or the LBGT+ rainbow. Staff appreciate the pupil's individuality.	other countries, a group they belong to or the LBGT+ rainbow. Staff appreciate the pupil's individuality.
Homework/Independent learning	As set by teacher Teachers are currently developing quizzes.	As set by teacher Teachers are currently developing quizzes.	As set by teacher Teachers are currently developing quizzes.	As set by teacher Teachers are currently developing quizzes.
CIAG coverage/links				