	Dallam School Technology Curriculum Overview	**Department: Design Technology** **Year Group: 7**

Rotation 1	**Rotation 2**	**Rotation 3**
Theme/ topic: **Animal Phone Stand**	**Theme/ topic:** **Textiles Nightlight**	**Theme/ topic:** **Food Technology**
By the end of this half term pupils will know (key knowledge, including tier 3 vocabulary):		
➢ How to analyse a task ➢ Identify types of timber ➢ Understand Scale ➢ Communicate through isometric drawing ➢ Why tessellation is important ➢ How to analyse existing products ➢ Creating a Client Profile ➢ Why we produce Specification ➢ How to write a Design Brief ➢ Design drawings and annotation ➢ Using CAD – 2D Design ➢ Understand why we make Physical Models ➢ Evaluation **Practical skills:** ➢ Timber joints ➢ Pillar drill ➢ Hand tools ➢ Disc sander ➢ CAM – Laser cutter **Tier 3 Vocabulary:** ➢ *Product Analysis* ➢ *Aesthetics* ➢ *Function* ➢ *Tessellation* ➢ *Computer Aided Design* ➢ *Softwood* ➢ *Hardwood*	➢ Understanding fibres and fabrics through testing ➢ Research the types of fibres: ➢ Natural fibres - sources, properties and uses ➢ Synthetic fibres - sources, properties and uses ➢ How fabrics are constructed ➢ Understanding clothes washing instructions ➢ Knowledge of a sewing machine – name the parts, skills test ➢ What is a smart material – USP types and uses ➢ Producing stencil designing ➢ Evaluation **Practical skills:** ➢ Hand Stitching ➢ Weaving ➢ Sewing on buttons ➢ Sewing Machine ➢ Light reactive smart material **Tier 3 Vocabulary:** ➢ *Absorbency* ➢ *Abrasion* ➢ *Properties* ➢ *Natural fibres* ➢ *Synthetic fibres* ➢ *Weft and Warp* ➢ *Smart materials*	➢ The importance of health and safety in the food room- Identifying risks and how to prevent them ➢ Food safety, storage and hygiene ➢ Know kitchen equipment ➢ How to have a balanced diet ➢ The role of a chef ➢ How to sensory analysis **Practical skills:** ➢ Bridge technique ➢ Claw technique ➢ How to use a hob ➢ How to use a grill ➢ How to use an oven **Tier 3 Vocabulary** ➢ *Hygiene* ➢ *Bridge technique* ➢ *Claw technique* ➢ *Nutrient* ➢ *Protein* ➢ *Carbohydrate* ➢ *Fat* ➢ *Vitamin A,B,C,D* ➢ *Mineral- Iron, Calcium* ➢ *Fibre* ➢ *Hydration*

➢ *Manmade board* ➢ *Isometric* ➢ *Scale Drawing*	➢ *Photochromic* ➢ *Thermochromic*	
They will understand (key concepts):		
➢ Why we analysis a product ➢ How we select the correct types of timber for a product. ➢ How we use isometric drawings to communicate an idea ➢ How tessellation makes manufacture more cost effective. ➢ How to use research to produce a specification. ➢ How to use a specification to evaluate ideas and a final product ➢ How to produce a physical model	➢ Why we use different fabrics depending on their properties. ➢ The origin of fabrics ➢ How fabrics are constructed ➢ What is a smart material – USP types and uses	➢ Why it is important to follow health and safety guidance ➢ The impact of poor food safety and poor food hygiene ➢ The function of kitchen equipment ➢ The importance of a healthy balanced diet and how to follow one ➢ The functions and food sources of some nutrients ➢ How the senses are used to analyse food
They will know how to (key skills including speaking, reading and writing in this subject):		
➢ Write a comprehensive product analysis ➢ Draw in isometric ➢ Use CAD to tessellate shapes ➢ Write a detailed specification using ACCESS FM. ➢ Use both CAD and physical modelling	➢ Read clothes washing instructions ➢ To use a sewing machine ➢ Write a detailed evaluation	➢ Read recipes ➢ Make a complete dish ➢ Apply their knowledge of equipment to practical lessons ➢ How to have a balanced diet ➢ How to use words to describe food in relation to the 5 senses

	Dallam School Technology Curriculum Overview	**Department: Design Technology** **Year Group: 8**

Rotation 1	**Rotation 2**	**Rotation 3**
Theme/ topic: **Picture Frame**	**Theme/ topic:** **Nightlight**	**Theme/ topic:** **Food Tech**
By the end of this half term pupils will know (key knowledge, including tier 3 vocabulary):		
➢ Research Timber - types, properties and uses ➢ Research timber joints ➢ Isometric drawing ➢ Understand how to use hand tools - Process and Health and Safety ➢ How to produce a Plan of Manufacture – Health and Safety, Quality Assurance checks ➢ What are the different types of Scales of Production ➢ Complete self and peer assessment ➢ Evaluation ➢ Iterative Design ➢ Creating prototypes ➢ **Practical Skills** – ➢ Measuring ➢ Marking out and use of hand tools **Tier 3 Vocabulary:** ➢ *Half-Lap Mitre Joint* ➢ *Scales of Production* ➢ *Criteria* ➢ *Grain* ➢ *Quality* ➢ *Mitre* ➢ *Mitre square* ➢ *Tenon saw* ➢ *File*	➢ Understanding Workshop Safety ➢ Analysing existing products ➢ Research types of timber ➢ Timber - Types, Properties and Uses ➢ Polymers - Types, Properties and Uses ➢ Writing a Specification ➢ Design Movements ➢ Key designers ➢ Using CAD – 2D Design ➢ Understanding Electronic Components ➢ Why we use Schematic Symbols ➢ Designing a Circuit Diagram ➢ Evaluation **Practical Skills:** ➢ Soldering ➢ Timber Workshop Skill ➢ CAM – Laser cutter **Tier 3 Vocabulary:** ➢ *CAM – Laser cutter* ➢ *Solder* ➢ *Circuit* ➢ *Resistor* ➢ *Light Emitting Diode* ➢ *Acrylic* ➢ *Etch* ➢ *Current*	➢ The importance of food hygiene and food safety ➢ How to have a healthy Diet and the nutrition it provides ➢ The impact of food Miles and how to eat seasonally ➢ The meaning of a vegetarian and their diet ➢ Job roles in the industry ➢ Types of establishments **Practical skills:** ➢ Development of knife skills ➢ How to work with high risk foods ➢ Using a temperature probe ➢ Marinating ➢ Forming a paste ➢ Bread making ➢ Development of using the cooker including roasting and baking **Tier 3 Vocabulary:** ➢ *Hygiene* ➢ *Bridge technique* ➢ *Claw technique* ➢ *Nutrient* ➢ *Protein* ➢ *Carbohydrate* ➢ *Fat*

➢ *Router* ➢ *Measurements*	➢ *Jig* ➢ *Template*	➢ *Vitamin A,B,C,D* ➢ *Mineral- Iron, Calcium* ➢ *Fibre* ➢ *Hydration* ➢ *Seasonality* ➢ *Food miles* ➢ *Marinade* ➢ *Paste* ➢ *Vegetarianism*
They will understand (key concepts):		
➢ Understand how to use hand tools - Process and Health and Safety ➢ The different type of timber their properties and uses ➢ The different type of joints and their uses ➢ Why we produce a range of ideas ➢ Why products are manufactured in different scales ➢ How to complete self and peer assessment and why they help with the development of a product	➢ Understanding Workshop Safety ➢ Why we analysis a product ➢ The different type of timber their properties and uses ➢ The different type of polymers their properties and uses ➢ The different type of electrical components and uses ➢ The benefits of using CAD and CAM	➢ Understand the importance of good food hygiene and food safety ➢ How to lead a healthy lifestyle and have a healthy balance diet ➢ Understand some of the functions and food sources of nutrients ➢ The impact of food miles ➢ The benefits of buying seasonal and local produce ➢ Understand vegetarianism and some protein alternatives ➢ The purpose of some jobs roles and the types of establishments they would work in
They will know how to (key skills including speaking, reading and writing in this subject):		
➢ Produce a range of ideas ➢ Write a detailed Plan of Manufacture – Health and Safety, Quality Assurance checks ➢ Write a detailed evaluation ➢ How to produce a physical model	➢ Identification of different timbers and polymers ➢ Produce a range of ideas ➢ Draw in 2 point-perspective ➢ Write a detailed evaluation ➢ How components in a circuit work, and how to solder safely	➢ Read recipes ➢ Make a complete dish using high risk food ➢ How to create a healthy, balanced meal that is rich in nutrients ➢ How to eat seasonally ➢ Suggest adaptions to dishes for vegetarians

	Dallam School Technology Curriculum Overview	**Department: Design Technology** **Year Group: 9**

Rotation 1	**Rotation 2**	**Rotation 3**
Theme/ topic: **Passive Amp**	**Theme/ topic:** **Mechanical Dispenser**	**Theme/ topic:** **Food Tech**
By the end of this half term pupils will know (key knowledge, including tier 3 vocabulary):		
➢ Workshop Safety ➢ Specification ➢ Accurate measuring ➢ Sound waves (links to science) ➢ Mood board ➢ Product Analysis ➢ Wood Research ➢ CAD – 2D Design ➢ Finishes ➢ Evaluation **Practical skills:** ➢ Marking out ➢ Use of hand tools ➢ Use of drill ➢ Use of CAM (laser cutter) ➢ Application of finishes **Tier 3 Vocabulary:** ➢ *Amplification* ➢ *Jig* ➢ *Aesthetics* ➢ *Client* ➢ *Pillar drill* ➢ *Coping saw* ➢ *Flat file* ➢ *Round file*	➢ Mechanical Devices ➢ 6R's ➢ Timber joining methods ➢ Production Aids ➢ Logo Design ➢ Isometric drawing **Practical skills:** ➢ Accurate measuring ➢ Marking out tools ➢ Use of hand saws ➢ Use of Production Aids ➢ USe of pillar drill ➢ CAD/CAM **Tier 3 Vocabulary:** ➢ *Linkages* ➢ *Cams* ➢ *Followers* ➢ *Levers* ➢ *Mechanisms* ➢ *Recycle* ➢ *Reuse* ➢ *Repair* ➢ *Rethink* ➢ *Reduce*	➢ The importance of food hygiene and food safety ➢ The functions and food sources of nutrients- including excess and deficiencies ➢ A variety of special diets-allergies and intolerances ➢ The role of an Environmental Health Officer ➢ Jobs roles and contracts in the industry ➢ Cooking methods ➢ Environmental factors to consider in the industry **Practical skills:** ➢ Development of knife skills ➢ How to work with high risk foods ➢ Using a temperature probe ➢ Bread making ➢ Pastry making ➢ Sauce making **Tier 3 Vocabulary**: ➢ *Hygiene* ➢ *Bridge technique* ➢ *Claw technique* ➢ *Nutrient* ➢ *Protein*

➢ *Half-round file* ➢ *Etch* ➢ *1-Point perspective* ➢ *2-point perspective*	➢ *Refuse* ➢ *Production Aids* ➢ *Jigs* ➢ *Moulds* ➢ *Templates* ➢ *Isometric*	➢ *Carbohydrate* ➢ *Fat* ➢ *Vitamin A,B,C,D* ➢ *Mineral- Iron, Calcium* ➢ *Fibre* ➢ *Hydration* ➢ *Seasonality* ➢ *Food miles* ➢ *Allergies* ➢ *Intolerances* ➢ *Excess and deficiencies* ➢ *Environmental Health Officer*
They will understand (key concepts):		
➢ Assessment and testing of different shapes to analyse what makes sound channels in a passive amplifier successful. ➢ The need for accurate measuring and tolerance in manufacture ➢ Understanding what different finishes can be applied to a product and whether they are for function or aesthetics ➢ To be able to evaluate a finished product with strengths and weaknesses	➢ How different Mechanical Devices work, and the selection of appropriate mechanical device ➢ How designers, consumers and manufacturers can be more sustainable ➢ Selection of appropriate manufacturing techniques including joining timbers ➢ The different Production Aids and links to scales of production ➢ Logo Design – designing for a client ➢ Isometric drawing strategy, showing tones of light and dark ➢ To be able to evaluate a finished product with strengths and weaknesses	
They will know how to (key skills including speaking, reading and writing in this subject):		
➢ How to complete investigation and testing as a part of research and development ➢ How to accurately measure and mark out with tolerance ➢ How to calculate tolerance ➢ How to apply different finishes to achieve a high quality product	➢ How to accurately measure and mark out with tolerance ➢ Different industry methods to ensure quality ➢ How to answer questions in full sentences with justification ➢ Reflection and improvement of own work	➢ Read recipes ➢ Make a complete dish using a variety of skills ➢ Suggest adaptions to dishes for a variety of dietary needs ➢ How to apply healthier cooking methods for dishes ➢ How to reduce the impact to the environment when shopping, preparing and cooking dishes