TNHA Curriculum Planning Document Subject: Design Technology Year: 7

	Autumn	Spring	Summer
Prior learning from Ks2	Knowledge and understanding of mm and use of rulers.	Knowledge and understanding of 3D drawing and sketching	Capability to use scissors accurately
Component topic/project	1).Workshop safety rules 2).Cartoon Hanger unit	1). Electronic fuse and moisture tester.	1). Metal key fob/jewellery. Reserve project Flying beastie
Learning Aim	1).To know how to behave in a workshop scenario. 2). How to choose appropriate materials. Use of Coping saw and Mechanical Fret saw. Use of pillar drill To learn about appropriate finishes	1). To develop an understanding of simple electronic components and circuits. Use of Soldering iron, vacuum forming, drilling very small holes with hand drills. To work with care and accuracy.	1). To learn how to work with metals and the tools that are required. RP).To learn to cut out accurately to a given shape. To apply a good quality finish to wood. To understand the concepts of balance and support.

Teaching content	1). One lesson given at start of year. Walk around the facility and talks on the do's and don'ts of behaviour in a workshop. 2). Teacher led demonstrations on how to use equipment. Examples of project on display and shown to pupils.	1). Introduction via images of electronic components, the circuit and the method of making.	1).Demonstrations on equipment used for working with metals. Demonstration on use of buffing machine. RP). To demonstrate how to prepare and apply a quality finish to wood. To show how to work out balance points and support.
Resources	1)Workshop rules sheets for planners. List of equipment and processes for pupils to tick when achieved. 2). Large stock of scrap woods in various thicknesses and colour. A backing board A5 size for each pupil. 6mm dowel rod. Access to Scissors, Pritstik, Coping saws, Mechanical Fret saws, Pillar drills and drill bits, glasspaper, PVA and varnish.	1). Correct quantities of Battery clips, resistors, LED's, copper rods, precut chassis boards. Vacuum forming machine, HIPPS in various colours, hand held battery drills, 2mm and 5mm drill bits and Tensol cement, Soldering irons and soft solder, wire strippers and cutters.	1). 5 to 6mm thick sheet Aluminium 50x30 max. Scriber's, steel rules, files, hacksaws, (both types) emery cloth, wet and dry paper, metal polish. Access to pillar drills, 3.5 drill bits, polishing/buffing machine and Tripoli lustre soap. RP). Precut strips of 6mm plywood or MDF 300x 100 Precut strips of 3mm MDF or Plywood 300x120. Sanding sealer, poster paints, varnish, string. Access to pillar drills coping saws and mechanical fret saws, files and glasspaper. A4 plain paper, scissors and Pritstik
Assessment	Range from L3 to L 5 in line with subject guidelines		

TNHA Curriculum Planning Document Subject: Design Technology Year: 8

	Autumn	Spring	Summer
Prior learning from Ks2	Knowledge and understanding of mm and use of rulers.	Knowledge and understanding of 3D drawing and sketching	Capability to use scissors accurately
Component topic/project	Whirlygig unit	Acrylic coat hook set	Steel coat hook. Reserve Project). Metal or acrylic key fob.
Learning Aim	How to choose appropriate materials. Designing and choosing a theme. Use of Tenon saw, Try square, paring chisel Coping saw and Mechanical Fret saw. Use of pillar drill To learn about appropriate joints for wood	Learn how to cut out and work with acrylic. Possible use of Laser cutter. Understand how and be able to use, fold and bond Acrylic sheet.	To learn how to work with metals and the tools that are required. How to cold fix metals

Teaching content	Work images for pupils to work from Teacher led demonstrations on how to use equipment and produce housing joints and lap joints. Examples of project on display and shown to pupils.	Demonstrations of how to use and manipulate acrylic sheet. Demonstration of how to use line bender. Use of 2D and laser cutter	Demonstrations on equipment used for working with metals. Demonstration on use of buffing machine.
Resources	A4 plain paper. 300x40x12 pine strips, 200mm lengths of 2mm welding rod, 20x20mm blocks of pine, 20 x2mm strips of plastic (hips) and access to 2-3mm sheet Card or mdf. Tools. Tenon saws, Try squares. Steel rules, Chisels, Mallets,	Access to computers for 2D and laser cutter Access to acrylic sheet in a range of colours, coping saws, Mechanical fret saws, files, steel rules, glasspaper, silicon carbide wet and dry paper and acrylic polish. Line benders.	Strips of BDMS 12x3mm. Sheet steel squares 30x30x1.5 mm Snap head rivets, ball pein hammers, Scriber's, steel rules, engineers squares, files, hacksaws, (both types) emery cloth, wet and dry paper, metal polish. Access to pillar drills, 3.5 drill bits. polishing/buffing machine and Tripoli lustre soap.
Assessment	Range from L3 to L 5 in line with subject guidelines		
Links	To all subjects offered		

TNHA Curriculum Planning Document Subject: Design Technology Year: 9

	Autumn	Spring	Summer
Prior learning from Ks2	Knowledge and understanding of mm and use of rulers.	Knowledge and understanding of 3D drawing and sketching	Capability to use scissors accurately
Component topic/project	Desk top lamp unit	Acrylic phone stand	Steel tack hammer Reserve Project: jewellery/ paperweight. Extension project. Pull along toy.

Learning Aim	How to choose appropriate materials. Designing and choosing a theme. Use of Tenon saw, Try square, Chisels Coping saw and Mechanical Fret saw. Use of Pillar drill, specialist drill bits, wood finishes To learn about appropriate joints for wood	Learn how to cut out and work with acrylic. Possible use of Laser cutter. Understand how and be able to use, fold and bond Acrylic sheet.	To learn how to work with metals and the tools that are required. How to use a centre lathe, cut a thread.
Teaching content	Work images for pupils to work from Teacher led demonstrations on how to use equipment and produce dowel joints and cross halving joints. Examples of project on display and shown to pupils.	Demonstrations of how to use and manipulate acrylic sheet. Demonstration of how to use line bender. Use of 2D and laser cutter	Demonstrations on equipment used for working with metals. Demonstrations on centre lathe, thread cutting and filing. RP). Demonstration on use of buffing machine.
Resources	A4 plain paper.	Access to computers for 2D and laser cutter	Strips of BDMS 12x3mm. Sheet steel squares 30x30x1.5 mm

	220x35x35. Pine or similar 300x20x10 pine or similar, access to sheet materials 3mm thickness 140x140mm Tools. Tenon saws, try squares. Steel rules, chisels, mallets, mechanical saws, pillar drills and bits (forstner, spade, twist). Glass papers and varnish	Access to acrylic sheet in a range of colours, coping saws, Mechanical fret saws, files, steel rules, glasspaper, silicon carbide wet and dry paper and acrylic polish. Line benders.	Ball pein hammers, Scriber's, steel rules, engineers squares, files, hacksaws, (both types) M10 Tap and Die sets emery cloth, wet and dry paper, Access to pillar drills, 3.5 and 8.5 drill bits, Access to Centre Lathes RP). polishing/buffing machine and Tripoli lustre soap.
Assessment	Range from L3 to L 5 in line with subject guidelines		
Links	To all subjects offered		