

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology Year Group 7

Week	Autumn
1	Intro to Technology. Expectations and health and Safety.
2	Intro to Textiles and tasks for half term 1 and 2. Info on STM and initial ideas.
3	Mood board
4	Photoshop lesson 1 – Identifying tools and layout. Setting up a page. Adding shapes and symbols and renaming layers
5	Photoshop lesson 2 – Resizing layers and deleting backgrounds
6	Photoshop lesson 3 – Adding solid colour and gradient.
7	Photoshop lesson 4 – Adding text and effects.
8	Photoshop lesson 5 – Adding details.
9	Photoshop lesson 6 – Assessment- create logo from scratch only using step by step.
10	Skills – lesson 1 Sewing machines – Sewing machines driving test.
11	Skills – lesson 2 Sewing machines – Threading up the sewing machine.
12	Skills – lesson 3 Sewing machines – Sewing straight lines.
13	Skills – lesson 4 Sewing machines – Sewing curves.
14	Skills – lesson 5 Sewing machines – Plain seam.
15	Skills – lesson 6 Applique –Sample.

Week	Spring
16	Health and Safety, Design Brief & Existing products
17	Task analysis & Cams
18	Oblique Projection
19	Rendering
20	Annotation of design idea
21	Marking out & cutting (Tenon saw)
22	Filing & smoothing
23	Drilling, screwing & counter sinking
24	Cutting (coping saw)
25	Constructing, filling, smoothing & priming
26	Undercoating & painting
27	Correcting mistakes, touching up paint work

Week	Summer
28	Health and Safety
29	Demo/ Cook fruit salad
30	Eatwell guide 1
31	Demo/ cook Pizza Toast
32	Eat well guide 2
33	Revision
34	Assessment
35	Function of Ingredients
36	Demo/ cook Flapjack
37	Plan pasta salad
38	Demo/ cook pasta salad
39	Evaluate pasta salad

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology Year Group 8

Week	<b>Autumn</b>
1	Design brief and analysis Expectations and health safety. Initial design thoughts.
2	Mood board
3	Design ideas – Original design using mood board
4	Design ideas – Size and colour development
5	Design ideas – Add and replace development
6	Design ideas – Erase and double development
7	Applique
8	Embroidery
9	Paper pattern
10	Fabric cutting
11	Continue applique
12	Adding applique
13	Embellishment
14	Blanket Stitch
15	Stuffing stuff monster & sew remaining gap.

Week	<b>Spring</b>
16	Health and Safety & Design Brief
17	Existing products & Task analysis
18	Isometric drawing of cross & circle shape
19	Isometric drawing of umbrella & ring for keyring
20	Rendering & annotating
21	CAD (2D design) & laser cutting
22	Pewter casting & removing funnel
23	Filing & smoothing
24	Buffing
25	Drilling
26	Decorating
27	Packaging

Week	<b>Summer</b>
28	Health and Safety
29	Food Waste
30	Demo/ cook soup
31	Bread- Function of ingredients
32	Demo/ make bread
33	Evaluate bread rolls
34	Revision/ assessment
35	Vitamins and minerals
36	Demo/cook ragu
37	Food provenance
38	Demo/ cook muffins
39	Carbohydrates

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology Year Group 9

Week	Autumn
1	Design brief and analysis. Expectations and health safety. Mood board of sugar skulls.
2	Photoshop 1 – Setting up photoshop and creating cushion outline and sewing line. Add stitch detail to sewing line.
3	Photoshop 2 – Adding all outlines for design.
4	Photoshop 3 – Adding stitch detail.
5	Photoshop 4 – Creating magnified views.
6	Photoshop 4 – Colour options
7	Applique
8	Embroidery – Backstitch
9	Paper pattern – Construct templates for outline of and cushion and all applique pieces.
10	Fabric cutting – Pin paper templates to fabric and cut.
11	Adding applique
12	Sewing machines – Driving licence
13	Sewing machines – Threading up machine
14	Decoration to cushion.
15	Sew front and back of cushion together.

Week	Spring
16	Health and Safety & Design Brief
17	Existing products & Task analysis
18	Perspective drawing
19	Drawing base for clock & clock face
20	Rendering & annotating
21	(CAD) 2D Design & laser cutting
22	Marking out & cutting
23	Chiselling & gluing
24	Filling & smoothing
25	Premier & undercoat
26	Painting & constructing
27	Electronics (Soldering)

Week	Summer
28	Health and Safety
29	Vitamins and minerals
30	Demo/ cook chow Mein
31	Dovetail Plan 1
32	Demo/ cook bolognese sauce
33	Dove tail plan 2
34	Demo/ cook Pizza
35	Dove tail plan 3
36	Experiment- Fats in pastry
37	Demo/ cook Jam Tarts
38	Evaluation of jam Tarts
39	Demo/ Cook Curry

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology (Product Design)

Year Group 10

Week	<b>Autumn</b>
1	Market Pull & Technology Push & Customer Choice
2	Product Life Cycle & Global production
3	Legislation and consumer rights & Moral and ethical factors
4	Sustainability & CAD/CAM
5	Using CAM equipment & The importance of sustainability issues
6	Social, cultural, economic and environmental responsibilities & Fairtrade
7	Carbon footprint & Ecological footprint
8	Generation & storage of energy & Adv & Disadv of renewable energy sources
9	Renewable energy sources for products & Energy generation and storage
10	Smart materials (Part 1)
11	Smart materials (Part 2)
12	Composites
13	Technical textiles (Part 1)
14	Technical textiles (Part 2)
15	End of term test on D&T and our world & smart and modern materials.

Week	<b>Spring</b>
16	Primary sources & seasoning of timbers & Defects in timber
17	Types of natural timber & Manufactured timber
18	Deforestation & Selection of materials
19	Impact of forces & stress & Stock form
20	Calculating the cost & Scale of production
21	Marking out & Shaping wood
22	Aesthetic and functional properties
23	Fixing and joining methods
24	Laminating, steam bending & veneering
25	Computer Aided manufacture
26	Designing and manufacturing methods for timber
27	End of term test on Timbers

Week	<b>Summer</b>
28	Types & sizes of papers
29	Types & weight of card and cardboard
30	Laminating paper and board
31	Ferrous and non-ferrous metals
32	Finishes for metals
33	Alloys
34	Thermoforming and thermosetting polymers
35	Natural polymers
36	Natural, synthetic, blended and mixed fibres, and woven, non-woven and knitted textiles
37	Revision
38	End of term test on Materials
39	Work experience

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology (Product Design) Year Group 11

Week	<b>Autumn</b>
1	Analysing the contextual challenges
2	Planning research
3	User research
4	Internet research
5	Inspiration board
6	Textbook research & You Tube research
7	Analysis of research
8	Design brief & Initial specification
9	Final specification
10	Initial ideas
11	Revision for mocks
12	Mock
13	Develop of shape & detail
14	Develop of colours
15	Develop of materials & manufacturing processes

Week	<b>Spring</b>
16	Develop of models
17	Develop of prototype
18	Presentation drawing
19	Manufactures specification
20	Plan of making
21	Electronic control systems
22	Output and input devises & flow charts
23	Programmable components
24	Functions of mechanical devices, cams, levers, gears, etc.
25	Revision
26	End of term Electronics and mechanics
27	Skills and Revision

Week	<b>Summer</b>
28	Skills and revision
29	Skills and revision
30	Skills and revision
31	Skills and revision
32	Skills and revision
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St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology (Textiles) Year Group 10

Week	<b>Autumn</b>
1	Market Pull & Technology Push & Customer Choice
2	Product Life Cycle & Global production
3	Legislation and consumer rights & Moral and ethical factors
4	Sustainability & CAD/CAM
5	Using CAM equipment & The importance of sustainability issues
6	Social, cultural, economic and environmental responsibilities & Fairtrade
7	Carbon footprint & Ecological footprint
8	Generation & storage of energy & Adv & Disadv of renewable energy sources
9	Renewable energy sources for products & Energy generation and storage
10	Smart materials (Part 1)
11	Smart materials (Part 2)
12	Composites
13	Technical textiles (Part 1)
14	Technical textiles (Part 2)
15	End of term test on D&T and our world & smart and modern materials.

Week	<b>Spring</b>
16	Sources, origins, physical and working properties of fibres and fabrics
17	Fibric specification
18	Yarns, laminated and coating fabrics
19	Quilting, ecological and social footprint
20	Biodiversity, social and ethical issues
21	Selection of materials or components
22	Impact of force and stress on materials
23	Stock form, types and sizes
24	Alternative process for scales of production
25	Specialist techniques and processes
26	Appropriate surface treatments
27	End of term test on Timbers

Week	<b>Summer</b>
28	Types & sizes of papers
29	Types & weight of card and cardboard
30	Laminating paper and board
31	Ferrous and non-ferrous metals
32	Finishes for metals
33	Alloys
34	Thermoforming and thermosetting polymers
35	Natural polymers
36	Natural, synthetic, blended and mixed fibres, and woven, non-woven and knitted textiles
37	Revision
38	End of term test on Materials
39	Work experience

St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Design & technology (Textiles)

Year Group 11

Week	<b>Autumn</b>
1	Analysing the contextual challenges
2	Planning research
3	User research
4	Internet research
5	Inspiration board
6	Textbook research & You Tube research
7	Analysis of research
8	Design brief & Initial specification
9	Final specification
10	Initial ideas
11	Revision for mocks
12	Mock
13	Develop of shape & detail
14	Develop of colours
15	Develop of materials & manufacturing processes

Week	<b>Spring</b>
16	Develop of models
17	Develop of prototype
18	Presentation drawing
19	Manufactures specification
20	Plan of making
21	Electronic control systems
22	Output and input devises & flow charts
23	Programmable components
24	Functions of mechanical devices, cams, levers, gears, etc.
25	Revision
26	End of term Electronics and mechanics
27	Skills and Revision

Week	<b>Summer</b>
28	Skills and revision
29	Skills and revision
30	Skills and revision
31	Skills and revision
32	Skills and revision
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St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Food Technology Year Group 10

Week	<b>Autumn</b>
1	Project 1- Introduction to course/ food commodities
2	Project 1- Carbohydrates- Bread
3	Project 1- Sensory Analysis- Bread
4	Project 1- Cereals and Flour
5	Project 1- Evaluate Victoria sponge
6	Project 1- Pasta shapes/ pasta
7	Project 1- Oats and rice
8	Project 1- Potatoes
9	Project 1- Fruit and Vegetables
10	Project 1- Vegetable cuts
11	Project 1- Dairy
12	Project 1- Protein
13	Project 1- Fats and oils
14	Project 1- Sugars
15	Revision/ Assessment

Week	<b>Spring</b>
16	Project 2- Protein
17	Project 2- Fats
18	Project 2- Carbohydrates
19	Project 2- Vitamins
20	Project 2- Minerals
21	Project 2- Dietary Fibre
22	Project 3- Energy
23	Project 3- Plan balanced diets
24	Project 3- Calculate Energy and nutritional values
25	Project 4- Why do we cook food.
26	Project 4- How heat is transferred during the cooking stage
27	Project 4- Selecting appropriate cooking methods

Week	<b>Summer</b>
28	Project 4- Positive use of micro-organisms
29	Project 4- Working characteristics, functional and chemical properties of food
30	Project 4- Why some recipes fail
31	Project 4- Storing foods correctly & date marks and labelling
32	Project 4- Food spoilage
33	Project 4- Role of temp, time, pH & moisture in the control of bacteria
34	Project 4- Bacterial cross- contamination
35	Project 4- Preservation
36	Project 4- Food poisoning
37	Project 4- Food wastage
38	Revision and Assessment
39	Work experience



St Thomas More RC College Curriculum Topic Overview commencing September 2021

Subject: Food preparation and nutrition Year Group 11

Week	Autumn
1	Project 4- Positive use of micro-organisms
2	Project 4- Working characteristics, functional and chemical properties of food
3	Project 4- Why some recipes fail
4	Project 4- Storing foods correctly & date marks and labelling
5	Project 4- Food spoilage
6	Project 4- Role of temp, time, pH & moisture in the control of bacteria
7	Project 4- Bacterial cross- contamination
8	Mock Revision- Why do we cook food & Selecting appropriate cooking methods
9	Mock revision- Water/ carbohydrates/ fish and fats
10	Project 4- Preservation
11	Project 4- Food poisoning
12	Project 4- Food wastage
13	Project 2- Protein
14	Project 2- Fats
15	Project 2- Carbohydrates

Week	Spring
16	Project 2- Vitamins
17	Project 2- Minerals & trace elements
18	Project 2- Dietary Fibre
19	Project 3- Energy
20	Project 3- Plan balanced diets
21	Project 3- Plan balanced diets
22	Project 3- Calculate Energy and nutritional values
23	Project 6- Sensory perception
24	Project 6- Factors that affect food choice
25	Project 6- Food choices
26	Project 6 Food labelling
27	Revision

Week	Summer
28	Skills and revision
29	Skills and revision
30	Skills and revision
31	Skills and revision
32	Skills and revision
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