



The Black Pear Trust

# D&T Subject Road Map

Key:

Cooking & Nutrition

Structures & Mechanisms

Textiles

Transition to High School

### Textiles

- Overlap and layer media
- Use a range of joining techniques with fabric.

### Structures

- Consider cost and workability when choosing materials
- Make precise measurements for joints, holes and openings
- Finish edges by adding other materials (edging strips)
- Explain the mechanical workings of a CAM
- Use: Yr5 equipment + screwdrivers and hammers
- Choose the correct tools and equipment for the project, taking account of basic health and safety.

### Mechanisms

- Explain the mechanics of a CAM.
- Models are controlled by computers.

### Cooking and Nutrition (Autumn 1- This is Me)

- Explain how each food group is used by the body
- Understand social influences on the food we choose to eat
- Select and prepare foods for a particular purpose.
- Cut and shape ingredients using appropriate tools and equipment e.g. grating

Y6

### Cooking and Nutrition (Autumn 1- This is Me)

- Explain the basic food groups
- Dietary requirements of different faiths and cultures and take this into account when designing
- Join and combine food ingredients appropriately e.g. beating, rubbing in; decorate appropriately

### Structures

- Explore paper techniques such as pop up books and origami
- Add paper curlings to a surface to embellish
- Mark out using their own patterns and templates
- Use glue guns, saws, set squares, bench hooks, drills, punches, needles and thread, tape measures

### Mechanisms

- Describe gears and pulleys
- Investigate different circuit possibilities

### Textiles

- Mark out own patterns and templates
- Batik
- Use a range of sewing techniques.

Y5

### Textiles

- Combine materials
- Back stitch and running stitch
- Explore and recreate fastenings
- Create texture (tying, sewing and pulling threads)

### Structures

- Make levers and linkages
- Use linkages to make movement larger or more varied
- Join materials with permanent and temporary fastenings
- Use scissors, simple knives (craft and kitchen) bench hooks, saws, rulers and glue guns (1:1 help)

### Mechanisms

- Use electrical systems, series circuits, switches, buzzers and motors.

### Cooking and Nutrition (Autumn 1- This is Me)

- Analyse the taste, texture, smell and appearance of food
- Describe food products in terms of taste, texture, flavour and relate this to its intended purpose
- Create a product that needs to be cooked or chilled to change the nature of the raw ingredients

Y4

### Cooking and Nutrition (Autumn 1- This is Me)

- Recognise basic food groups
- Explain the eat well plate
- Develop sensory vocabulary/knowledge using, smell, taste, texture and feel
- Explain the differences between sweet

### Structures

- Use scoring, and folding to shape materials accurately.
- Choose tools appropriately: Scissors, glue sticks, bench hooks, hacksaws

### Mechanisms

- Explain the parts of a circuits

### Textiles

- Sew on a button
- Running stitch
- Use embroidery to make a pattern.

Y3

### Textiles

- Use accurate measurements in cm
- Join textiles using glue, staples, tying or a simple stitch
- Explore plaiting and understand the basic method

### Structures

- Measure and mark out materials
- Use safe ways of cutting, using a junior hacksaw
- Know how to make structures stronger by folding joining or by shape (columns, triangles).
- Use a range of joints

### Mechanisms

- Make a product that uses lever or a hinge (to make a movement)

### Cooking and Nutrition

- Prepare and cook two simple healthy dishes
- Use a cooker, hob and microwave to heat food (with adult supervision)
- Know origins of common processed food

Y2

### Cooking and Nutrition

- Identify healthy and unhealthy food
- Cut, chop, mix, spread and grate
- Know some food comes from plants and some from animals

### Structures

- Measure and mark out the materials
- Finish off my work so it looks neat and tidy

### Mechanisms

- Make a product that moves using a turning mechanism e.g. wheels, winding

### Textiles

- Measure, mark out and cut fabric
- Join fabrics using glue
- Make textiles stronger
- Sort threads and fabrics.
- Make weavings
- Cut, roll and coil materials

Y1

### YR R Structures and Mechanisms

- Children within the Early Years will take part in developing their understanding of "Structures and Mechanisms" through adult focus activities depending on the children interests and independently during their Child Initiated play through the continuous provided.
- Uses simple tools and techniques competently and appropriately.
- Selects appropriate resources and adapts work where necessary.
- Selects tools and techniques needed to shape, assemble and join materials they are using.
- They safely use and explore a variety of materials, tools and techniques, experimenting with design, texture, form and function.
- Uses various construction materials.
- Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.
- Joins construction pieces together to build and balance.
- Realises tools can be used for a purpose.
- Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks.
- Shows understanding of how to transport and store equipment safely.

### YR R Textiles

- Children within the Early Years will take part in textiles through adult focus activities depending on the children interests and independently during their Child Initiated play through the continuous provided.
- Constructs with a purpose in mind, using a variety of resources.
- Uses simple tools and techniques competently and appropriately.
- Selects appropriate resources and adapts work where necessary.
- Selects tools and techniques needed to shape, assemble and join materials they are using.
- They safely use and explore a variety of materials, tools and techniques, experimenting with design, texture form and function.

### Characteristics of effective learning

1. Playing and exploring—engagement
2. Active learning—motivation
3. Creating and thinking critically—thinking

YR

YN

### YR R Cooking and Nutrition

- Children within the Early Years will take part in cooking activities through adult focus activities depending on the children interests
- Understands the need for a variety in food
- Know the importance of making healthy diet choices
- Can talk about some of the things they have observed.
- Developing an understanding of changes over time (e.g the cake mixture changes when different ingredients are added as well as changing when it comes out of the oven.
- Uses simple tools and techniques competently and appropriately.

### YR N Textiles

- Children within the Early Years will take part in textiles through adult focus activities depending on the children interests and independently during their Child Initiated play through the continuous provided.
- Beginning to be interested in and describe the texture of things.
- Realises tools can be used for a purpose.
- Experiments to create different textures.

### YR N Structures and Mechanisms

- Children within the Early Years will take part in developing their understanding of "Structures and Mechanisms" through adult focus activities depending on the children interests and independently during their Child Initiated play through the continuous provided.
- Understands that they can use lines to enclose a space, and then begin to use these shapes to represent objects.
- Manipulates materials to achieve a planned effect.
- Constructs with a purpose in mind, using a variety of resources.

### YR N Cooking and Nutrition

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- Understands the need for a variety in food
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