

# DT: Topic overview: Year 2

Construction

Mechanisms

Sewing/ textiles

Cooking and nutrition

Woodwork

| Topic             | Knowledge - Children will learn                                                                                                                                                                                                                                                                                                                                                                    | Children will be able to...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Prior Knowledge                                                                                                                                                                                               | Key Vocabulary                                                                                                                                                                                                                                                                                                                                               |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wriggle and Crawl | <p>To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>To evaluate their ideas and products against design criteria.</p> | <p><b>Project objective: I can make a scene with a moving spider sing a winding mechanism.</b></p> <ul style="list-style-type: none"> <li>To explore winding mechanisms and how they move (fishing rod, wind up toy, pull back car, jack in the box, robot etc...)</li> </ul>      <p>Pull-back car</p> <ul style="list-style-type: none"> <li>To be able to plan and design a moving spider using a winding mechanism. To create a scene linked to the nursery rhyme incy wincy Spider. To use the winding tool, axel and handle to move incy up and down the drain pipe, tree, flower, web, wall. To label the drawing with annotations.</li> </ul> <p>To explore how products have been created<br/>To plan my idea and consider how to implement it using inspiration from real life and pictures.<br/>Use different pencils to sketch considering size, shape and different features.<br/>Create observational drawings and consider how they will create design.</p> <ul style="list-style-type: none"> <li>To be able to use my plan to make my moving spider scene. To select materials, tools and colours for a purpose and follow my plan. e.g. scissors and a hole punch. To measure to the nearest cm.</li> </ul> <p>Create products using axels, levers to create a winding mechanisms<br/>Use tools safely e.g. scissors and a hole punch<br/>With confidence cut materials safely using the tools provided.<br/>To demonstrate a range of cutting and shaping techniques. (Cutting, folding, curling, tearing)<br/>To measure and mark out with increased accuracy (Nearest cm)</p> <ul style="list-style-type: none"> <li>To evaluate my moving spider scene against a set of given criteria. To make suggestions for improvements next time.</li> </ul> <p>To explain what went well with my work. To evaluate my work.<br/>Explain what was easy and what was hard. Improvements to be made in future projects. Consider effectiveness and fitness for purpose.</p> | <p>Children will be able to use my own ideas to make something.</p> <p>Children will be able to choose appropriate resources and tools.</p> <p>Children will be able to make a simple plan before making.</p> | <p>2D, 3D, card, paper, sketch, draw, design, adapt, change, make, clay, mould, cut, stick, fix, join, evaluate, change, mix, paint, shade, shading, bright, dark, light, sketch, shadow, tone, sculpture. mould, twist, roll, pull, break, turn, cut, push, pull, Josiah Wedgwood, craft maker, techniques, pottery, Cutting, folding, curling, tearing</p> |



Seaside

To design purposeful, functional, appealing products for themselves and other users based on design criteria.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

**Project objective: I can make an appealing hand puppet which fits my hand.**

- To look at products which have been sewn to explore stitching techniques, sizes, colours and what makes products appealing.

To explore how products have been created

- To plan and design an animal they want to create with annotations and sizes for a puppet show.

To plan my idea and consider how to implement it using inspiration from real life and pictures.

Use different pencils to sketch considering size, shape and different features.

Create observational drawings and consider how they will create design.

- To sew a puppet for Punch and Judy with a rounded edge (no thumb). Use a running stitch.

To shape textiles using templates

To sew using a needle and thread. (Use a running stitch)

Colour and decorate textiles using a range of techniques (Dyeing, adding sequins, printing, fabric pens)

Cut, shape and join fabric to make a simple design

To use a sewing needle safely.

To thread cotton onto a plastic needle.

To sew two pieces of material together with guides given.

To use fabric glue to add decorated pieces e.g. facial features, spots, stripes.

- To evaluate my hand puppet against a set of given criteria.

To explain what went well with my work. To evaluate my work.

Explain what was easy and what was hard. Improvements to be made in future projects.

Consider effectiveness and fitness for purpose.

Children have used fabric scissors to cut fabric to create a collage of a new super hero costume.

Children have used fabric glue to join pieces together.

Felt, material, fabric, scissors, needle, thread, cotton, sew, sewing, techniques, running stitch, fabric glue, buttons, design, join, fix, apply, evaluate, improve,



Towers  
Tunnels  
and  
Turretts

To select from and use a range of tools and equipment to perform practical tasks.

To select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

### Project objective: I can make an edible stew.

Throughout the topic discuss the famous cook Jamie Oliver and how his work is on Healthy Eating (Nationality- English)

- As a class we can use instructions to make a vegetable stew. To taste the stew and evaluate its taste.

To follow correct cutting instructions e.g. claw and bridge. Consider ingredients and instructions for making a food dish.

Consider effectiveness and fitness for purpose.

- To work in a group of 6 to design and plan a vegetable stew considering each persons opinions.
- To create a vegetable stew in groups of 6 using a variety of different vegetable ingredients.

To cut, peel or grate ingredients safely

To cut food safely and hygienically

To measure or weight using measuring cups or electric scales

To assemble or cook healthy ingredients

To understand where food comes from

To understand what a recipe is.

Ingredients and instructions for making a food dish

To follow safe procedures for food safety and hygiene whilst cooking.

Wash your hands before and after touching food, tie any long hair back, wear an apron, wash vegetables before cooking, move carefully and safely in the kitchen, wipe up any spillages, be careful when your using knives, use oven mitts when moving hot pans, wash all utensils in hot, soapy water.

To name cooking equipment required for my recipe.( Hob, oven, measuring jug, measuring scales, chopping board, knife)

To describe the ingredients I am using. (onions, potatoes, carrots, leek, peas, tomatoes)

To use the correct cutting technique to cut vegetables. (Claw and bridge)

- Taste the stew and complete an evaluation. Get friends to taste the different stews and complete an evaluation on all the stews.

To explain what went well with my work. To evaluate my work.

Explain what was easy and what was hard. Improvements to be made in future projects. Consider effectiveness and fitness for purpose.



Children can choose appropriate resources and tools.

Children can cut food safely.

cut, chop slice, peel, knife, peeler, chopping board, taste, evaluation, stir, mix, Hob, oven, measuring jug, measuring scales, chopping board, knife. onions, potatoes, carrots, leek, peas, tomatoes.

## Construction

## Mechanisms

## Sewing/ textiles

## Cooking and nutrition

## Woodwork

Land Ahoy!

To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].

To evaluate their ideas and products against design criteria.

To build structures, exploring how they can be made stronger, stiffer and more stable.

**Project objective: I can make a boat which floats.**

- To investigate materials that will not sink so I can use them for my model. (wood, sponge, cork, plastic) To investigate toy ships and what they are made from to discuss why they float. (Plastic, lightweight)

To explore how products have been created

- To draw and design a model of a ship. To annotate the materials they will need, including the length.

To plan my idea and consider how to implement it using inspiration from real life and pictures.

Use different pencils to sketch considering size, shape and different features.

Create observational drawings and consider how they will create design.

- To use wood to make a ship following my plan. (use the saw and glue gun, junk modelling materials for base as well as wood)

To choose tools and materials and explain why I have chosen them. (Junk modelling materials, base, wood)

To cut materials safely using the tools provided.

To measure materials to use in a structure or model. (Use of a glue gun, saw, measuring ruler, wood. Base, junk modelling materials.)

To measure and mark out to the nearest centimetre

To join materials and components in different ways following health and safety rules.

To demonstrate a range of cutting and shaping techniques. (Cutting, folding, curling, tearing)

To use materials to practice screwing, gluing to make and strengthen products.

To assemble, combine and join materials and components together using a variety of temporary methods

- To evaluate the choice of the materials chosen. To evaluate the ship and talk about any adaptations / difficulties they came across when making the model.

To explain what went well with my work. To evaluate my work.

Explain what was easy and what was hard. Improvements to be made in future projects.

Consider effectiveness and fitness for purpose.



Children can describe how something works.

Children can use their own ideas to make something.

Children can explain to someone else how they want to make their product.

Children can choose appropriate resources and tools.

2D, 3D, card, paper, fabric, straw, sand, fix, mould, glue, cut, join, paint, bottles. tubs, margarine carton, yogurt pots, tape, mock-ups, templates, information, appropriate, communicate, technology, tools, equipment, perform, practical, cutting, shaping, joining, finishing, design, evaluate, criteria, structure, exploring, stronger, stiffer, stable Cutting, folding, curling, tearing.

## Construction

## Mechanisms

## Sewing/ textiles

## Cooking and nutrition

## Woodwork

Magical medicines

To design purposeful, functional, appealing products for themselves and other users based on design criteria.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

To evaluate their ideas and products against design criteria.

**Project objective: I can make a free standing hospital.**

Throughout the topic discuss Fazlur Rahman Khan and how he is a structural engineer and architect, who initiated important structural systems for skyscrapers (Nationality- Bangladeshi-American)

- To research buildings and what features they have. To explore materials and how they are suitable for different purposes.
- To plan and design a hospital using photographs for inspiration. To label and annotate the materials they will need to create the hospital and how they will use tools for effect. Consider using boxes, bottles, tissue rolls, bubble wrap, fabric, foil, scissors, glue gun, sticky tape.

To explore how products have been created

To plan my idea and consider how to implement it using inspiration from real life and pictures.

Use different pencils to sketch considering size, shape and different features.

Create observational drawings and consider how they will create design.

- To create and make a 3D model of a hospital (Using a ruler, and measuring tape, use cutting skills to make opening doors and windows, use materials to strengthen a car port. e.g glue and masking tape.)

To choose tools and materials and explain why I have chosen them. (Boxes, bottles, tissue rolls, bubble wrap, fabric, foil, scissors, glue gun, sticky tape.)

To measure materials to use in a structure or model. (Using a ruler, measuring tape)

To assemble, combine and join materials and components together using a variety of temporary methods e.g glue and masking tape.

To make my model stronger and join items together.

Measure, mark, cut and shape materials and components

To use and choose appropriate finishing techniques to improve the appearance of their product

- To evaluate the hospitals effectiveness against a set of given criteria. To compare the hospital to the plan and discuss changes which were made. To think about improvements and different materials which could be used to enhance it next time.

To explain what went well with my work. To evaluate my work.

Explain what was easy and what was hard. Improvements to be made in future projects. Consider effectiveness and fitness for purpose.

Children can use their own ideas to make something.

Children know how to make a model stronger.

Children can choose appropriate resources and tools.

Children can make a simple plan and write an evaluation.

2D, 3D, card, paper, fabric, straw, boxes, masking tape, sellotape, tubes, bottles.

