Key Stage One DT Curriculum Coverage. Two Year Cycle.

Expected Vocabulary. NC Objectives. Intended activities. Additional knowledge for prior learning for KS2

These skills/activities can be taught weekly or in a block as appropriate and will fit around the art scheme which are shorter units of 4 weeks.

Year group and Topic	Key Stage One Objective	Knowledge/Activity	Vocabulary
Year 1 Autumn 1 What can we find in the woods? CONSTRUCTION	Build structures, exploring how they can be made stronger, stiffer and more stable. Design purposeful, functional, appealing products for themselves and other users based on design criteria. select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate their ideas and products against design criteria.	Science link to animals including humans topic and writing opportunity to explain about their den: Look at and match a range of woodland animals to their homes, and explore new vocabulary; rabbit warren, badger sett, fox den, squirrel drey, bird nest. Design and build a nest or den for a woodland creature following criteria for that animal. Discuss materials to make it stronger, stiffer and more stable. Use a variety of natural materials and build outside. Children to describe how they built it and the reason for their choice of material and location. Can children build larger sized dens? – Links with Forest Schools. Children to spend time playing with their dens and nests. Record with photos and evaluate.	Structure Den Attach Materials Stronger Stiffer Stable Size Job – forest ranger/environment officer
Autumn 2 Is the sky always blue?	Additional activity: Pop up Christmas card and decorations.		
Spring 1 Where can we sail in our galleon?	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Research different design ideas for flags/hats that are waterproof and most suited materials to meet the design criteria.	Design Evaluate Material Glue gun

TEXTILES	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate information and communication technology. Select from and use a range of tools and equipment to perform practical tasks. Use tools safely. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	Design and make a flag / hat and test the best waterproof material (link to science – prior learning needed for materials). Evaluate based on design criteria. Possible writing link – write instructions for how to make their hat.	Glue Stronger Waterproof Shape Job – sailor/designer
Spring 2 Do all animals have fur? MECHANISMS	Explore and use mechanisms. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate information and communication technology.	Make an Easter card with a moving part (moving chick / egg). Chn to choose an animal and research it using a search engine. Then design their animal (art link) and paint it. Then evaluate it. How realistic is it? What do you like? What could you improve?	Mechanism Rotate/pivot Levers Sliders Research Design Model Evaluate

	Evaluate their ideas and products against design criteria.		
Summer 1 What can we find in our local area? CONSTRUCTION	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Design purposeful, functional, appealing products for themselves and other users based on design criteria. Evaluate their ideas and products against design criteria.	Geography and writing link to English – recount trip around the local area. Science link – exploring everyday materials. Using close up photographs of the shops on the high street, taken from the local walk. Give pairs of children one shop to recreate using boxes and other materials. They need to look at the windows, doors, signage, content in the windows etc. Models need to have paper stuck to them and draw specific features on, such as bricks, tiles, doors. Children could create opening doors, or items that may need to go outside (tables and chairs). Then all shops to be placed together to create a class replica high street, including roads, paths and green areas. Invite parents to take a walk along the high street. OR Design and make a model for a new playground for our school. Writing link: Children to consider how to keep their environment safe and clean. What messages do they want to share with the people of Shirland/school? Design posters to put in the community/around school to help people remember how to take care of it – make connections with local council so we could actually display them around the village.	Building Construction Bricks Tiles Floors Doors Bakers Butchers Job – architect/builder

Summer 2 Farm to fork COOKING ADDITIONAL – Food Tech (can of food for each child, unopened and label soaked off)	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Evaluate their ideas and products against design criteria. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics. Understand where food comes from. Use the basic principles of a healthy and varied diet to prepare dishes.	Children to design a label for a chosen food product. Explore labels from tin cans, looking for the key features that are included in labelling. Talk about how food companies use attractive packaging and careful words to tempt people into buying them. Mind map ideas for images and packaging information before designing their labels. Once design ideas are complete get the children to review them – how could they be improved, (larger title, clearer picture etc) Children to take on board evaluations and then create their final label and fix it to an actual can (unopened and label removed). Display them and take photos for evaluation. Make links with a local bakery (JACKSONS at Clay Cross) or parents who bake for a living or hobby (Nicola S)– History/Geography link. Children to explore what an old bakery might have sold. Work with grandparents possibly to create cakes and treats to sell in a class baker (not bread). Discuss where ingredients have come from and link to food groups for diet. Children could wear traditional bakers apron and hat, advertise and sell their bakes to raise funds.	Label Packaging Plan Design Make Evaluate Remodel Attractive/appealing Job – packaging designer Baking Ingredients Cake Sweet/savoury Combine Rise Job - baker

Year 2 Autumn 1 **Where do minibeasts live?** COOKING	Explore and evaluate a range of existing products. Understand where food comes from. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Science link to living things and their habitats. Writing link to write a report about minibeasts to include information about honey. Honey products taste test – Take a range of food, packaged, unpackaged, fresh and processed and describe flavours. Express opinion and thoughts: FOCUS - Children to record the way in which they can conduct this test hygienically (washing hands, using spoons, wiping surfaces, fridge, washing up, disposal etc). Children to understand that honey comes from plants and insects from this country and abroad. Following a visit from a bee keeper (bee week) children to look at and understand honey comb. Touch feel and smell the honeycomb, looking closely at the individual cells. What is it made of and what are its uses? Through the science link of bee life cycle and pollination, children to observe smell and taste a variety of honey, understanding that the type of flowers that a bee feeds on will affect the flavour of the honey. Using the honey, make a honey baked treat that involves following a recipe, using a variety of skills to create and record what they did. Evaluate the taste.	Packaged/unpackaged **Fresh** **Processed** **Flavour** Sweet, salty, sour, bitter, sharp. **Hygiene** **Mix** **Bake** Taste **Job – beekeeper/baker**

Autumn 2 **What would you find in Space?** CONSTRUCTION	Design purposeful and functional produces for themselves and other users based on design criteria. **Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]** **Select from and use a wide range of materials and components, including <u>construction</u> materials, textiles and ingredients, according to their characteristics** Explore and evaluate a range of existing products. Evaluate their own ideas and products against design criteria. Explore and use mechanisms – sliders, wheels and axles.	Writing link – recount about visiting space. Design and make a model alien spaceship, gathering inspiration from books and stories they have read as well as their own imagination. Model their spacecraft using a variety of junk materials and construction kits, taking digital photos of their work in progress. (CONSIDER A SPACE THEMED ROLE PLAY AREA with construction) Look at and play with a range of moving vehicles, observing and talking about how they move using appropriate vocabulary. Children to use this knowledge to build a simple moon buggy with cardboard, axles through voids and attaching wheels - Sketch their design and label the different parts, now test the buggy on different surfaces (tarmac, sand, slopes, grass etc) and record what happens. Children to evaluate their model, what worked well what would they change?	**Model** **Construction** Shell Hatch **Vehicle** Template Review Evaluate Structure **Axles** **Wheels** **Job – NASA scientist/engineer**
Spring 1 **What happens in our capital city?** MECHANISMS	Explore and use mechanisms – levers and sliders. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate information and communication technology. **Evaluate their ideas and products against design criteria.** (*NC states that children should work in a range of contexts – consider this project as homework – could be brought into school to evaluate*)	Geography and writing link – report all about London. Use drawing software to draw a vehicle that they would find in London such as a double decker bus, underground train, black cab, 999 vehicle or bike. Save their image and print onto card. Using a slider mechanism create a 2Dmoving picture of their vehicle travelling along a road, path or track. Evaluate function of slider. Homework - Look at a range of famous buildings in London. What makes them special? What are they made of? Children to focus on the London Eye – can they look closely and name the structural elements and look at the number of pods – use vocabulary like spindles, axles, etc – children to create this using KINEX as homework model, lego etc. or a static model using straws etc.	Vehicle **Mechanism** **2d moving** **Sliders** handle **Evaluate** **Job – mechanic** Model Spindles axles

Spring 2 **What happened on the Titanic?** TEXTILES	Explore and evaluate a range of existing products in the context of evaluating bunting designs. **Design purposeful, functional, appealing products for themselves and other users based on design criteria.** Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology in the context of using a basic graphics program to design a bunting flag. Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping and finishing). Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics. Evaluate their ideas and products against a design criteria in the context of evaluating the bunting flag.	History link – Titanic Evaluate a range of existing bunting with a theme around counting. Children are then set a design criteria. Children will be given the chance to explore different fabrics that they could use to enhance their designs. Make Titanic bunting from fabric using cutting and sewing skills. Working with felt, children will cut out a bunting shape and use a simple running stitch. Using techniques such as sewing, stapling and gluing, children will decorate their felt flag. Finally children will evaluate their product. Additional activity: Using a science link (icebergs) – melting and freezing to make icebergs.	**Cut** **Shape** **Sew** – running stitch Stick Staple **Fabric** **Felt** Template Design evaluate **Job – seamstress/designer** **Melt** **Freeze** **Mix**
Summer 1 **How would you build a fortress?** CONSTRUCTION	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Design purposeful, functional, appealing products for themselves and other users based on design criteria. Build structures, exploring how they can be made stronger, stiffer and more stable.	History link – discuss fortresses and castles existing designs. Using large boxes or small – children to build a castle either for small figures or for them to play in. Children to plan and design a castle first, how many turrets, secret passageway, draw bridge etc for strength/stability – then build in small groups. Children to use rulers to measure towers and turrets and to mark, cut and assemble. Evaluate according to criteria.	Plan Design Make/assemble Evaluate Remodel Construction **Turret/Tower** **drawbridge** Attach Structure **Stronger** **Stiffer** **stable** Base Join/attach **Job – architect/builder**

	Evaluate their ideas and products against design criteria.		
Summer 2 **Staying healthy** COOKING	Understand where food comes from. Use the basic principles of a healthy diet and varied diet to prepare a dish. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics. Evaluate their ideas and products against design criteria.	Sort a range of food in different ways to show where they have come from. To address misconceptions, sort food in different ways. UK and abroad, plant or animal (Quorn). Spend longer looking at a balanced diet - Use the balanced diet diagram (food pyramid) to sort food into food groups and healthy and unhealthy. Children to plan, design and make a healthy (savoury) dish such as vegetable salad and identify the food groups from which they have chosen. Record with photographs and instructions/recipes. Using a science link – why is it important to stay healthy? What else can we do to keep healthy? Possible writing link – write instructions for how to make their dish.	Plant based Animal product Quorn **Balanced diet** Food pyramid **Healthy** **Unhealthy** **Food groups – fats, dairy, protein, fruit and vegetables, carbohydrates.** **Job – dietician, chef**