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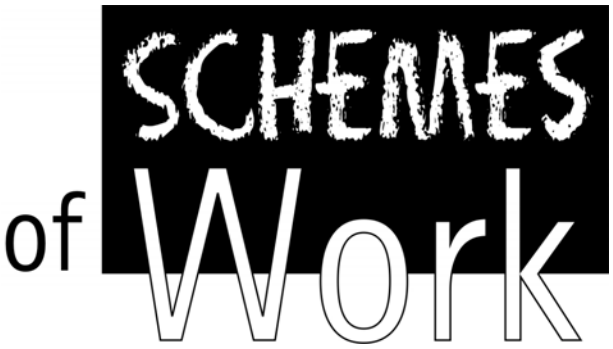
EQUALS is committed to improving the lives of children and young people with learning difficulties and disabilities through supporting high quality education

Schemes of Work for the National Curriculum for pupils with learning difficulties. Interactive CD ROMs



Preview
Design & Technology
Key Stages 1,2,3 & 4

Dear Subject Coordinators

We hope that you will find the materials helpful when working with pupils who are achieving within the eight levels of the P Scales, the first two levels of the national curriculum and across all four key stages. In writing these examples of good working practice, special consideration was given to the current mainstream and Special Education guidance from the QCA at the time.

What is a Scheme of Work?

A Scheme of Work illustrates the different ways in which teachers can plan subject learning opportunities to respond to the specific needs and priorities of the children, their communities and the schools themselves. They also build on children's experiences and earlier learning from the Foundation Stage onwards.

Who writes Schemes of Work?

Schemes of Work are written by teachers with expertise in Special Education who are currently teaching pupils who are working within the full range of the P Scales and the early levels of the National Curriculum.

Who would use a Scheme of Work?

Schemes of Work are used by teachers involved in the delivery of the National Curriculum and support the statutory responsibilities of Head Teachers and Governors to ensure delivery of a broad and balanced curriculum.

What does a Scheme of Work include?

A Scheme of Work is the overall planned provision of a subject in a Key Stage. It is made up of the units of work, which may be taught in any order across the Key Stage. Some of the units will be more appropriately taught at a certain time in the school year such as a unit on Christmas and a unit on spring festivals. Units are medium –term plans, usually designed for half a term. They set out specific learning objectives as well as possible teaching activities and learning outcomes.

What ages are Schemes of Work available for?

Schemes of Work are available for EYFS, Key Stages 1-4 and 16-19 pupils.

How useful are published Schemes of Work?

The use of published Schemes of Work gives valuable guidance to schools in their implementation of the curriculum and saves teacher planning time

Are the Schemes of Work linked to the P Scales?

Yes, the Schemes of Work are linked directly to the P Scales through differentiated learning outcomes.

Preview

Design and Technology; Key Stage 1

Key Stage 1

Design and Technology

Unit Title: Winding Up **Key Stage 1** **Unit 1.2.3**

ABOUT THE UNIT

Through this unit pupils will learn:

- the concept of how winding mechanisms can be used to raise or lower a load
- to explore winding mechanisms through using construction kits and reclaimed materials to make a toy
- how to make a crane, winch, magnetic fishing game or props to illustrate a well known story involving parts that move up and down.

WHERE THE UNIT FITS IN

This is one of 11 units in Design and Technology at Key Stage 1

Links to other units :-

1.1 moving pictures.
2.1 Vehicles.
3.3 Moving Monsters
5.3 Moving Toys
6.3 Fairground
6.4 Controllable Vehicles

Prior knowledge of wheels and axles.

Prior experience of construction kits.

Prior knowledge of making stable structures.

VOCABULARY

fast
slow
faster
slower
up
down
turn
wind up
wind down
punch
drill
dowel
fix
crank handle
axle
tight
loose
turning
string
magnet

RESOURCES

Lego Technic or K-nex construction kits suitable for making a winding mechanism.

Hole punch, card and cardboard boxes.

Button thread or other thin strong string e.g. Nylon kite string. Cotton reels, lolly sticks, dowel, strips of wood.

Hand drill or small cordless drill.

Paper clips, magnets and staples.

Drilling jig for accurate holes.

Drill bits to make a loose hole and a tight hole to suit dowel used e.g. for 6mm dowel – a 7mm and 5.5mm drill bit.

Mitre saw/sawing jig for wood pieces.

Glue and glue gun.

EXPECTATIONS

At the end of this unit:

All pupils will:
Respond to a range of sensory experiences and observe, explore and experience a range of common materials and tools. They observe and explore familiar products and how things work.

Most pupils will:
Explore the qualities of materials by playing and experimenting. They begin to communicate likes and dislikes.

A few pupils will:
Communicate what they like and dislike. They make choices, choosing a product or elements of a design. They may draw or model their ideas. They may plan by indicating what to do next.

Winding Up (KS1) Unit 1.2.3

LEARNING OBJECTIVES	POSSIBLE EXPERIENCES AND TEACHING ACTIVITIES	DIFFERENTIATED LEARNING OUTCOMES	POINTS TO NOTE
Pupils should: Encounter the concept of how winding mechanisms can be used to raise or lower a load.	Show the pupils toys e.g. crane, winch and magnetic fishing rod. Talk with the pupils about how these mechanisms work and what they do. Make a model crane with a construction kit and allow the pupils to try the mechanism, possibly with support to turn the crank handle. The teacher could make a sample winch from wire and strip softwood and demonstrate it to the class. Can you make the hook go up? How do you turn the handle? What happens to the handle if you pull the string out? The teacher will need to make a number of crank/spindles each with different diameters to show the pupils the effect of lifting power versus speed of lift. The pupils could try different weights with each type of spindle and see which is easier/faster.	Pupils will: • grasp and turn a crank handle with support • show interest and react to a fish being picked up by the magnet • anticipate what will happen when the handle is turned • recognise familiar products and explore the parts they are made from • watch others using a process and copy their actions	Many pupils toys and construction kits use a winch or winding mechanism.

Explore winding mechanisms through using construction kits and reclaimed materials to make a toy.	Remind the pupils how they made an axle previously, (2A Vehicles) and how to enable the axle to turn easily. Talk about possible difficulties e.g. holes are not parallel. Remind the pupils how to punch holes in card, and how to drill loose and tight holes in wood. Show how a magnet can be used to pick up thin paper fish with paper clips or staples near the mouth as a pick up point. Ask the pupils to use construction kits, reclaimed materials and any other materials provided to make a simple winch mechanism with a crank handle. The teacher could provide a number of semi-finished cranks and spindles for the pupils to complete themselves.	Pupils will: • assemble components with support and explore options within a limited range of materials • recognise products and explore the parts they are made for • use basic tools and process chosen in negotiation with staff • manipulate a wider range of tools to join components together • select tools and materials and justify their choices.	Care will be needed when pupils work with long pieces of very strong string. Keep the pieces of string short to avoid accidents. Care needed with magnets and other objects flailing around the room on the end of fishing rods.

Learn to make a crane, winch, magnetic fishing game or props to illustrate a well known story involving parts that move up and down.	Discuss the order in which pupils will do their work. Read a familiar story with the pupils involving things that move up and down, e.g."Rapunzel",or "Incey wincey spider". Ask the pupils to make working props for the story worked by a winding mechanism. Discuss with the class or group the type of winding mechanism they could make. Show them the materials available and make sure they understand the sequence of what needs to be done. Using the experience gained so far, pupils make a winding mechanism to illustrate a story. Some or all of the mechanisms used and made in earlier sessions could be used as a basis for the finished piece. This will enable pupils to look at visual enhancements (spider, Rapunzel's hair) without having to start construction of a winding mechanism from scratch. Pupils could finish the unit by telling part of the story and illustrating it with their winding mechanism.	Pupils will: • show emerging awareness of activities and experiences • initiate interactions and activities • explore options within a limited range of materials • watch others and copy their actions • begin to contribute to decisions about what they will do and how • generate ideas and plan what to do next based on their experience of working with materials, tools and components	If wood is to be used, a local secondary school may be able to help to prepare wood to size and can offer support on design/construction of drilling jigs to suitable material used. The Secondary Design and Technology department may be able to lend suitable drill bits and cordless drill. A secondary school may be willing to cut wood to size on a band saw/circular saw. Visit secondary school for woodwork session. Many pupils will have great difficulty turning the hand drill without support. Care and extra support needed with cordless drill or hand drill. Cordless drill is heavy and few pupils will be able to lift the weight without support of an adult. Some pupils will need support to find/press the trigger of the cordless drill. Extra support and care needed with sawing of wood with the mitre saw or sawing jig. Some pupils of this age will not be able to move the saw without help. Support and care needed so that glue is not applied to parts which need to move freely. Support and care needed with hot glue gun.

Design and Technology

Key Stage 2

2.3.1 Packaging

2.3.2 Sandwich Snacks

2.3.3 Moving Monsters

2.3.4 Photograph Frames

2.4.1 Money Containers

2.4.2 Story Books

2.4.3 Torches

2.4.4 Alarms

2.5.1 Musical Instruments

2.5.2 Bread

2.5.3 Moving Toys

2.5.4 Biscuits

2.6.1 Shelters

2.6.2 Slippers

2.6.3 Fairground

2.6.4 Controllable Vehicles

Design and Technology

Unit Title: Sandwich Snacks **Key Stage 2** **Unit 2.3.2**

ABOUT THE UNIT

Through this unit pupils will:

- develop an awareness of healthy eating
- develop an awareness of food hygiene
- make a sandwich for a purpose

WHERE THE UNIT FITS IN

This is one of sixteen units for Key stage 2.

Links to other units :-

1.3 Eat More Fruit and 'Vegetables
2.6 Energy
2.7 Picnics
5.2 Bread
5.4 Biscuits.

Links to Language, Literacy and Science.

Possible links to
ICT
Mathematics

VOCABULARY

Used in context, spoken, signed or symbols:

vitamins
disease
nutrition
diet
healthy eating
germs
hygiene
cross contamination

RESOURCES

Food processing equipment
Ingredients
Food products
Aprons
Pictures or symbols of foods

EXPECTATIONS

At the end of this unit:

All pupils will:
Make choices in response to sensory experiences.
Observe, explore and experience familiar products.

Most pupils will:
Communicate what they like and dislike.
Try out ideas by shaping materials.

A few pupils will:
Make products on the basis of preferences expressed by others.
Select tools and materials from a range suggested by the teacher.

Sandwich Snacks (KS 2) Unit 2.3.2

LEARNING OBJECTIVES	POSSIBLE EXPERIENCES AND TEACHING ACTIVITIES	DIFFERENTIATED LEARNING OUTCOMES	POINTS TO NOTE
Pupils should: Develop awareness of healthy eating.	Sort foods into groups using carrier bags of actual shopping or photographs of food items or pictures or symbols. Look at, touch, feel, smell, taste foods from different food groups. Group similar foods together. Link the food items to their own meals – what was on your plate at lunchtime. Discuss why we eat – hungry, energy, healthy, stay alive, and keep warm. Which foods do what for us – what do you eat when you need energy or to fill you up? What does a baby eat? Why don't some people eat meat? Why are some people on a diet, what sort of diet? Communicate about why they eat, what and when. Explore dietary needs of different groups of people. Make associations between food groups and good health. Explore snack foods – what do you eat as a snack, when, why? Use pictures, symbols and actual foods. Sort snack foods into healthy/unhealthy, high fat/ low fat, high calorie/ low calorie. Look at labels on foods compare fat and/or calorie contents. Visit a supermarket – look at what food is displayed where and with what, are there healthy aisles and unhealthy aisles, are there sweets and chocolate at the checkouts, why?	Pupils will: • encounter opportunities to investigate foods in a sensory manner. • communicate about their likes and dislikes of food. • contribute to decisions about what they should and should not eat. • talk about their own preferences and justify their choice. • explain their own and other people's work.	Some pupils will respond better to actual foods. Be aware of pupils with special dietary needs for cultural or health reasons. Pupils who are tube fed can be involved by relating to a family member or another member of the group. Be sensitive to pupils' home circumstances. Health and safety on trip.

Develop an awareness of food hygiene.	Discuss rules for health and safety in the Food Technology area, make a list or poster for the wall. Highlight dangerous equipment and areas, discuss behaviour expectations and consequences of accidents. What routines do you follow before you cook or eat – washing hands, wearing aprons. Talk about personal hygiene around food, germs from hands, noses, hair, open cuts or sores. Visit the school canteen or a local café and look at what clothing is worn by the staff, what food is prepared where, how is food stored, where do the staff wash their hands, do they wear gloves? Look at sell by dates on food products, leave some food to go off and show pupils mould on bread or jam, stale milk, over ripe fruit or vegetables. Sort a bag of shopping or pictures or food items – where would Mum store this, where can you find these at home. Look at food storage, talk about keeping raw and cooked foods separate, covering foods and keeping things at the right temperature, reheating foods and the implications. Show cross contamination of foods reusing equipment without cleaning it properly. Use coloured chopping boards to highlight which foods should be kept separate from others. Look at the school fridge, what is stored where, is it clean, is it tidy, what if the steak drips blood onto the cheese?	• encounter activities and experiences. • react to new activities and experiences. • cooperate with shared exploration. • respond to options and choices. • demonstrate preferences for products. • contribute to decisions. • select appropriate equipment.	Stale food has a different smell and texture to fresh for pupils. Be sensitive to pupils' personal home circumstances.

Make a sandwich for a purpose.	Disassemble and taste a range of commercially produced sandwiches. Compare and evaluate. Discuss favourites and carry out a survey to compare. Visit a local supermarket, record the range of sandwiches available, prices and ingredients. Look at different breads, discuss countries of origin and the cultures involved. Make a sandwich from a given range of ingredients – breads, and fillings that have been prepared for example sliced tomato, sliced cucumber, tuna, ham, egg, cress, chocolate spread, jam, honey, etc. Discuss the colours, textures, flavours etc. Are they sweet or savoury, which is your favourite. Make limited choices and carry out the task by directing an enabler or working hand over hand or with prompt or independently. Communicate their choices. Use symbols of the ingredients to cut and paste onto a recipe sheet. Use an individual method that allows pupils to contribute. Discuss the purpose of their final sandwich – end of term picnic or to take home for their tea. Who is it for, what do they like, what makes a good sandwich? Draw up a specification for the perfect sandwich. Written independently, cut and paste suggested phrases in words or symbols, talk about the sandwich falling apart when being eaten. Ask the pupil to choose the order for making. Use symbols of the ingredients to cut and paste to make a record of their order of making, make a recipe card or menu card to accompany their sandwich.	• respond to the materials offered. • communicate about their likes and dislikes. • explore the options offered to them. • demonstrate preferences for ingredients and equipment. • use equipment with support. • use pictures and words to describe their product. • assemble and combine ingredients.	Health and safety on trip. Pupils who are tube fed can be involved by relating to a family member or another member of the group. Some pupils may need strong flavours to give definite responses. Pupils should be encouraged to work as independently as possible but may require verbal or physical prompts or hand over hand assistance.

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Preview

Schemes of Work

Design Technology Key Stage 3

Key Stage 3 List of Units

(Year 7)

7.1 Novelties
7.2 Salads and Soups
7.3 Carry All
7.4 Be Seen
7.5 Snacks
7.6 Pocket Game

(Year 8)

8.1 Kites
8.2 Develop a Food Product Range
8.3 Moulds for Food Products
8.4 T Shirt Challenge
8.5 Personal Light Source
8.6 The Right Combination

(Year 9)

9.1 Specialist Diets
9.2 Fold it Up
9.3 Mini Enterprise
9.4 Finding an Identity
9.5 Safe and Sound
9.6 Batch Production

Design and Technology

Unit Title: Moulds used with Food Products Key Stage 3 Unit 3.8.3

ABOUT THE UNIT

Through this unit students will:

- develop an understanding that products can be hand-made or mass-produced and that each have different but equally desirable qualities
- understand that making a product from a mould relies on the properties of materials changing state between liquid and solid forms
- experience designing and making a mould to produce a food product.

WHERE THE UNIT FITS IN

This is one of 18 units in Design and Technology at Key Stage 3

Links to other units :-

3.1 Packaging,
5.2 Bread,
5.4 Biscuits.,
7.5 Snacks,
8.2 Develop a Food Product,
9.1 Specialist Diets,
9.6 Batch Production,
10.2 Pasta Production.

Science
Maths
Literacy
History

VOCABULARY

Used in context, spoken, signed or symbols:

design
materials
mould
liquid
solid
gas
thermal
plastic
vacuum
forming
capacity
volume
polythene
hand-made
mass-produce

RESOURCES

A collection of different mass-produced products (e.g. chocolates, chocolate eggs, moulded desserts, moulded cheeses).

Vacuum forming machine and/or plaster of Paris.

Microwave and/or pans and hob.

Blocks of softwood or MDF of different sizes and thickness' to construct moulds for vacuum forming or plaster of Paris.

Clingfilm to line the moulds for hygienic purposes.

Range of edible materials for moulding such as chocolate, jelly, marzipan, soft cheese etc.

EXPECTATIONS

At the end of this unit:

All students will:
have explored a range of commercially made food products. Encountered that materials can change from liquid to solid. Experience making a food product using a mould.

Most students will:
have explored a range of commercially made food products and recognised that many examples are constructed from moulds. Be aware that moulded products require materials to change between liquid and solid states. With support, design and make a mould for a moulded food product.

A few students will:
have investigated a range of commercially made food products and be able to specify which examples are constructed from moulds. Understand how materials can be changed from liquid to solid to achieve a required state for moulding (e.g. applying heat / cold, adding liquid). Be involved in designing and constructing a specific former for a mould in plaster or vacuum formed polythene to create their own moulded food product.

Moulds used with Food Products (KS 3) Unit 3.8.3

LEARNING OBJECTIVES	POSSIBLE EXPERIENCES AND TEACHING ACTIVITIES	DIFFERENTIATED LEARNING OUTCOMES	POINTS TO NOTE
Students should: Understand some of the qualities of mass-produced and hand-made products.	Investigative Disassembly And Evaluative Activities (IDEAs) Provide a range of food products (home-made and mass-produced) e.g. chocolates, chocolate eggs, biscuits, home made cakes, fruit desserts. Look at some of the qualities of the mass-produced food products (i.e. the consistency of shape, size, texture, appearance, taste) compared to homemade.	• respond, accept and engage in exploration with support. • recognise the qualities of mass-produced products compared to homemade. • recognise the qualities of mass-produced products compared to homemade and communicate views about them.	Students might like to visit a commercial food producer or be shown a video of commercially prepared foods.
Experience making a hand-made and mass-produced food product.	Focused Practical Task (FPT) Discuss some of the techniques needed in creating a product suitable for mass-production (i.e. forming a production line, casting, and moulding). Ask students to each make a simple food product (such as cheese sandwich). Look at the results (differences in quality, shape, quantity of filling etc.) Show the students how to make the same product by forming a production line. Evaluate the mass-produced sandwiches using the same criteria as the individual sandwiches.	• experience activities and respond to familiar objects • participate in shared activities with varying degrees of support • manipulate a range of equipment with support • select and use a wider range of equipment. • use equipment to combine ingredients in a variety of ways.	

Understand that some materials can change between liquid and solid form by investigating their properties.	Investigative Disassembly and Evaluative Activities (IDEAs) Look at food materials suitable for moulding (i.e. chocolate, gelatine products, soft cheeses, powdered potato). Discuss how the state of example materials can be changed between liquid and solid by applying heat/cold or adding / removing moisture.	• experience the changing forms in materials • communicate ways in which the properties of materials change state • recognise and communicate the ways the properties of materials can change • make suggestions about the changes that have occurred in the materials.	
Experience making a food product by utilising the properties of changing states.	Focused Practical Task (FPT) Students experience melting chocolate or ice cubes (in a microwave or pan and hob) and observe how heat changes the material from solid to liquid. The teacher might like to provide a range of small containers (i.e. yoghurt pots or egg-cups) to pour the liquid material into so that students can observe it setting and conforming to the shape of the container. A similar FPT can utilise the properties of powdered materials that need water to trigger changes in state.	• experience the operation of kitchen equipment to melt substances • operate kitchen equipment with guidance • recognise and communicate the ways in which kitchen equipment uses heat to change the properties of the substances • make suggestions about the ways that equipment can be used to heat substances • use a microwave or pan and hob independently and with regard for safety.	Teachers might like to bring in safety issues when dealing with heating materials (protective clothing etc.) Cling film can be used to line a container or mould to aid release and hygiene purposes

Experience designing and making a mould to make a food product for specific purpose or occasion. Understand that resistant materials are needed in the manufacture of a former to make a mould suitable for mass-production. Be aware of how to change the state of their chosen material to assist production.	Design and Make Assignment (DMA) Show students that moulds can be made from a variety of materials such as plaster or thermal plastics and that they too rely on the changing state of materials. Students decide on a material they would like to use for a food product and decide on its purpose. (i.e. chocolate for Easter eggs or Gelatine for a party jelly). Students produce a former to make the mould from clay, plasticine or softwood. The teacher can supervise the making of the actual mould from casting in plaster of Paris or thermal sheet plastic such as polythene in a vacuum former. Students can choose to press-mould or cast their food product by utilising the changing state properties of the chosen material. i.e. melting chocolate or adding hot water to gelatine powder before pouring into their plaster or vacuum formed plastic mould. Students should be made aware that moulds like these are reusable and could be used to mass-produce their own product.	• students choose from a given range of options • students explore options within a given range of choices • students begin to communicate preferences about their designing and making activities • their plans show that with help, they can put their ideas into practice. They explain what they are making and which tools they are using • they generate ideas and plan what to do next based on their experience with the FPT. They use tools to join and combine materials and components in a variety of ways.	Teachers might like to point out the problems that undercuts in a mould will cause (i.e. bottom being wider than the top will prevent removal of the product from the mould).

Key Stage 4 List of Units

(Year 10)

10.1 Point of Sale Display
10.2 Pasta Production
10.3 Sheet Materials
10.4 Dedicated to Tradition
10.5 Taking Care
10.6 Inclusive Designing

(Year 11)

11.1 School Trip
11.2 Industrial Experience
11.3 Corporate Identity
11.4 In the Style of…
11.5 Times Past -
11.6 Negotiated Project

Design and Technology

Unit Title: Times Past **Key Stage 4** **Unit 4.11.5**

ABOUT THE UNIT

Through this unit students will:

- develop an awareness that products develop over a period of time
- explore influences which bring about changes to product
- produce an artefact which reflects the manufacturing process of an historical object
- design an artefact utilising similar materials and processes as those used in times past.

WHERE THE UNIT FITS IN

This is one of 12 units in Design and Technology at Key Stage 4.

Links to other units :-

1.1 Moving Pictures
1.2 2.2 Puppets
2.5 Masks
3.3 Moving Monsters
5.3 Moving Toys
7.1 Novelties
7.6 Pocket Game
9.4 Finding an Identity
10.4 Dedicated to Tradition

History
Science
Literacy
Maths
PHSE

VOCABULARY

Used in context, spoken, signed or symbols:

materials
product
artefact
manufacture
past
present
finish
combine
hand-made
machine made

RESOURCES

Examples of artefacts from museums or home, e.g.

three different types of spinning toy:
- wooden top
- pressed metal (tin plate)
- electric (makes noises – lights up).

or

three different types of soft toys:
- rag doll
- furry bear
- knitted toy.

A variety of materials in sheet, strip and block form that can be easily manipulated to form the basis for a toy.

Card
Softwood
MDF
Felt
Polystyrene sheet

EXPECTATIONS

At the end of this unit:

All students will:
contribute to design and make activities that are linked to the design brief or focused practical task. Observe, explore and use a range of materials and tools.

Most students will:
communicate their ideas in different ways. Design and make products which accomplish most aspects of the design brief or focused practical task.

A few students will:
take part in design and make activities linked to the brief or focused practical tasks. Combine and process materials.

Times Past (KS4) Unit 4.11.5

LEARNING OBJECTIVES	POSSIBLE EXPERIENCES AND TEACHING ACTIVITIES	DIFFERENTIATED LEARNING OUTCOMES	POINTS TO NOTE
Students should: Develop an awareness that products develop over a period of time.	Students are given experience of a range of artefacts which reflect evolution over a period of time, e.g. visiting a museum, bringing in a range of actual artefacts. Example artefacts could be: - children's toys, i.e. spinning tops, wooden, plastic, electronic, pressed metal. - dolls, i.e. soft, hard plastic, ceramic, wooden, electronic. - bread i.e. rye, corn, soda, home made and manufactured, processed. - sweets i.e. pre sugar-cane, Honey based, boiled, cocoa plant-chocolate, novelty sweets. In small groups, compare, handle and use (or in the case of food, taste) the examples, noting the similarities, differences and determining changes (if any) between earlier and later artefacts. How is it made (hand made or mass produced)? What is it made from? How is it finished? Through touching, looking and using the artefacts, students should try to sort them into chronological order. The teacher could relate time to age groups within the family e.g. what would grandma use, eat, play with?	Students will: • respond, accept and engage in exploration with support • communicate types of materials the artefacts are made of • demonstrate preferences for products and materials • recognise different products and explore the different parts they are made from • handle or operate familiar products, with support and explore how they work • explore familiar products and communicate views about them when prompted • recognise the characteristics of familiar objects.	Actual artefacts are better than pictures. Teachers should try to reflect the interests of the students in their selection of artefacts or make it part of a topic involving other subjects.

Explore influences which bring about changes to products.	Look at material(s) that the artefacts are made of. Discuss why such material(s) were chosen, e.g. why use wood or metal instead of plastic? Why some artefacts have mechanical or electronic functions and some do not? Why some sweets have limited flavours? Why some types of bread are light in texture and some are heavy? Provide examples of different materials that the students can compare with the artefacts. Pieces of wood, ground flour, hard and soft, plastic sheet, fabric offcuts, ingredients etc.	• experience a range of materials. Show awareness of some differences in materials • communicate information about some materials • recognise different products and explore the different parts they are made from • explore the artefacts and communicate views about them when prompted • generate ideas about the changes observed in the range of artefacts.	Outside visitors could be invited to speak to the students and demonstrate the example artefacts. The teacher might also like to bring in other elements such as useability, fashion, function and cultural influences to developmental changes in products.
Produce an artefact which reflects the manufacturing process of an historical product	The teacher might involve the students in a focused practical task (FPT) utilising at least some of the manufacturing process from one of the artefacts, e.g. - make a simple spinning top from card and pencil. - make a small soft toy using felt and cotton wool and utilising machining. - make a wooden doll from softwood using small hand tools. Using a packet mix to make a small loaf of bread.	• experience activities and respond to familiar objects • participate in shared activities with less support • use basic tools with support • with support manipulate a wider range of tools in making activities • choose and use a wider range of basic tools appropriate for a given task.	(Focused Practical Tasks) (FPT) are undertaken to present a series of processes and skills. Usually those that are needed to reinforce understanding of a unit or help students prepare for a Design and Make activity (DMA).

Design an artefact utilising similar materials and processes as those used in times past.	Design and Make Assignment (DMA) The Focused Practical Task (FTP) could be extended into a DMA activity. For example, students to design and make a bread product using ingredients that were used many years ago, stone ground flour, fresh yeast. Choose size and shape of bread, loaf shaped buns. Add other ingredients to change taste: herbs, cheese and to change texture: seeds, oats, and nuts. The students could be given a basic bread recipe and allowed to add 1 or 2 other ingredients. They would make up the bread following written, oral, signed instructions and skills encountered in the FPT. A spinning top. Choose material, card, wood, vacuum formed plastic. Choose fulcrum dowel, metal rod. Decorate using spray techniques. A soft toy dressed in a historical clothes, Roman soldier, Victorian, punk rocker. Student could sketch out design ideas, cut out pictures and stick on ideas sheet, indicate choices, through signs / symbols.	• experience activities and respond to familiar objects • participate in shared activities with less support • choosing and using a wider range of basic tools appropriate for a given task • show that with help, they can put their ideas into practice. They explain what they are making and which tools they are using • generate ideas and plan what to do next based on their experience with the FPT. They use tools to join and combine materials and components in a variety of ways.	Undertaking an DMA requires a room that is reasonably equipped. The ability of the students will determine whether group or individual DMA's are carried out.