

## Unit 6/7 Transition: building on learning from key stage 2

### Focus: transition

#### About the unit

The main aim of this unit is to improve continuity and progression when pupils transfer from primary to secondary school.

Teachers can choose from three different design and make assignments (DMAs) on the themes:

- Novelties (food and/or resistant materials)
- Bubble packs (resistant materials)
- Puppets (textiles and/or resistant materials)

These are short DMAs that have been designed to give pupils opportunities to show how well they can work independently and how much they are able to draw on knowledge of a range of materials or focus areas developed at key stage 2.

Pupils gain the knowledge, skills and understanding they need to carry out the DMA successfully through product evaluation activities and focused practical tasks. They:

- demonstrate what they are able to do already, *eg by discussing a completed project from their previous school or a project that they have started and will continue in the new school, or by carrying out short, diagnostic, focused practical tasks or projects*
- explore the type of activities that they will be doing in year 7 and draw on similarities with projects they have done in the past
- familiarise themselves with their new environment and become independent learners within it, *eg get to know the people in the department who will help them, find out where resources are kept, learn basic safety procedures, get organised for their work, become familiar with new equipment*

#### Notes on transition

By the age of 11, pupils have been developing their D&T capability for six years. Between the ages of five and 11, very rapid development takes place and pupils gain a wide range of knowledge and skills on which to base future learning. It is widely recognised that the experience at key stage 3 is often radically different from that at key stage 2 and most pupils need help with adapting to their new learning environment. Some of the key differences are in:

- teaching and learning styles
- classroom organisation
- language and conventions used
- assessment and recording systems
- resources, tools, equipment and materials
- time available and the way time is structured

This unit recognises the potential impact of all this change. It offers a variety of mechanisms to ease pupils' transition from the primary to the secondary approach and to help ensure progression and continuity. These include orientation activities, acknowledging learning from key stage 2 and establishing links with primary schools.

#### Where the unit fits in

This unit is expected to take 9–12 hours.

This unit can be used in the first few lessons in year 7. It is designed to help teachers get to know their pupils' abilities and to give pupils a motivating insight into the whole D&T process.

It is helpful if the activities and DMA chosen for this unit are planned across the department, so that pupils have an opportunity to apply their understanding across materials and begin to recognise the scope of D&T as a whole. The suggested DMAs enable teachers to link different materials areas easily, *eg pupils could make a chocolate product with vacuum-formed packaging, or a rod puppet from wood and textiles.*

A department may choose to teach just the product evaluation activities and focused practical tasks, then move on to further tasks and a DMA from unit 7A 'Understanding materials' or unit 7B 'Designing and making for yourself'.

Although this unit has been designed for pupils transferring from year 6 to year 7, it could be adapted for pupils transferring at other ages.

There is also a transition unit at the end of key stage 3, unit 9F 'Moving on to key stage 4 (reviewing and target setting)'.

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## Expectations

### At the end of this unit

**most pupils will:** list their skills and knowledge; identify their strengths; draw on their previous experience; relate their past work to similar future tasks; develop independence in their new setting; identify key staff and facilities; know what is expected of them

**some pupils will not have made so much progress and will:** list things they did in D&T at key stage 2 and talk about what they have done before; learn the names of the teachers, the location of their D&T room, where the class keeps its work, and what they have to do to get ready for work in D&T

**some pupils will have progressed further and will:** identify clearly the knowledge and experience they already have that will be helpful to them in their year 7 work; draw on previous experience in their DMAs, and identify areas they want to improve; become independent quickly, finding relevant resources and implementing new routines

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## Prior learning

It is helpful if pupils have:

- investigated food products and evaluated their characteristics
- compared the processes involved in making commercial and domestic food products
- developed skills in using different tools and equipment
- learnt that ingredients have different characteristics
- learnt that products are designed for a particular purpose and are suited to particular users
- learnt that a designer needs to take into account appearance, function, cost and safety when designing products
- learnt that many materials can be used for a product and that each is chosen for its particular properties and function
- used patterns or templates to ensure consistency in size
- pinned, sewed and stitched materials together to create a product

Pupils should have gained the above knowledge, skills and understanding in years 5 and 6, through unit 5B ‘Bread’, unit 5D ‘Biscuits’ and unit 6B ‘Slippers’ in the key stage 2 scheme of work, or similar projects.

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## Language for learning

Through the activities in this unit, pupils will be able to understand, use and spell correctly words relating to:

- tools and equipment, *eg their names, what they are used for*
- the DMAs, *eg novelty, souvenir, packaging, puppets (rod, shadow, glove, marionette)*
- their progress, *eg strengths, previous, future*
- product evaluation activities, *eg appropriateness for purpose*

Speaking and listening – through the activities pupils could:

- share information and discuss ideas in groups, and solve problems

Writing – through the activities pupils could:

- write an organised, continuous text of at least 250 words of descriptive or explanatory writing appropriate to D&T
- plan and develop ideas and lines of thinking in continuous text
- use punctuation correctly to mark sentences, *eg full stops, capital letters, question/exclamation marks, commas*, and clarify meaning
- make notes, summaries, etc to clarify ideas and thinking which can be used later

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## Resources

Resources include:

- materials, tools and equipment for making puppets or novelties
- year 6 D&T work, *eg folders, photographs, products*
- previous year 7 D&T work, *eg display, video*
- textbooks, worksheets or activity books that pupils will use during year 7
- products for evaluation, *eg novelties, puppets*
- proficiency certificates for D&T equipment
- useful websites, *eg*
  - [www.incpen.org](http://www.incpen.org)
  - *sites of chocolate manufacturers, such as [www.cadbury.co.uk](http://www.cadbury.co.uk), [www.ferrero.co.uk](http://www.ferrero.co.uk)*

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## Future learning

This unit leads to work in unit 7B ‘Designing and making for yourself’ and unit 7C ‘Using ICT to support researching and designing’.

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## Out-of-school activities and homework

Pupils could:

- make a list called ‘What I can do already’, focusing on the strengths of their year 6 work
- produce a poster called ‘What am I going to learn in D&T this year?’, focusing on areas they want to improve
- draw and label new pieces of equipment used during the unit
- write a short guide on how to use the equipment safely

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## Links with other subjects

- English: discussing ideas, suggesting improvements and alternative methods, evaluating, finding and selecting information, writing different types of text.
- Art and design: recording and analysing first-hand observations by drawing.

**Learning objectives**

Pupils should learn:

**Possible teaching activities****Learning outcomes**

Pupils:

**Points to note****DESIGN AND MAKE ASSIGNMENT (DMA)**

- to design and make a product as independently as they are able by applying knowledge, skills and understanding they developed in years 5 and 6, and during the product evaluation activities and focused practical tasks

Pupils should be set a short DMA to find out how well they can work independently and how much they are able to draw on knowledge of a range of materials or focus areas.

Or, with prior planning with feeder schools, ask the pupils to bring in a piece of project work that they started in their primary school. Discuss how they will continue with the project.

**Examples**

These example DMAs have been written so they can be copied and given directly to pupils. Further details and contexts can be added, as appropriate.

**Novelties**

Novelties Ltd is a company that produces small gifts and souvenirs. One of its clients is a garden centre with a butterfly farm and aquarium. Design and make a shaped chocolate novelty in appropriate packaging to be sold at the centre's gift shop.

**Bubble packs**

The souvenir shop at a local attraction has asked for a prototype of a packaged novelty that it wants to sell cheaply. Bubble packs are used extensively for packaging toys and novelties. Make a former from a suitable material and then make a bubble pack and surrounding package for a novelty no bigger than 80mm × 60mm × 20mm. Include artwork that you would use to complete your finished package.

**Puppets**

Puppets are a good way to help children learn about issues such as crime, avoiding strangers, road safety, keeping teeth clean, healthy eating, and not playing with fire. Produce a puppet and write a story to teach primary school children something useful.

Note: 'Novelties' and 'Bubble packs' could be taught as one project, with pupils designing a former and making a mould to produce their chocolate shape, and then using this mould with appropriate backing to package the final product.

- find and select information that informs and clarifies the task
- show an awareness of the ways a lack of resources limits their work
- select materials/ingredients according to their working properties
- propose different materials/ingredients that might be used
- show an understanding of the situation in which their designs will have to function
- discuss, draw and model ideas
- suggest alternative methods if their first attempts fail
- make products using appropriate materials/ingredients and methods
- evaluate their products by comparing them against their original ideas
- suggest improvements

**Language for learning when seeking information**

- It might be helpful for pupils to talk to experts to find out information, *eg a primary teacher if they are designing a puppet or book for a child*. Pupils could use the conversation or a simple written questionnaire to check out their ideas as they develop.

**Health and safety**

- food moulds should be made from food-grade plastic
- teachers should point out and explain:
  - procedures in case of accident
  - where to find first-aid boxes, emergency kits and fire extinguishers
  - hazards and risks (how to recognise and prevent them)

Pupils should learn:

Pupils:

## PRODUCT EVALUATION

Organise a range of activities that give pupils an opportunity to:

- describe and evaluate products they have made previously
- consider the range of activities they will carry out over the year
- evaluate existing products by comparing them with their design criteria

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| <ul style="list-style-type: none"> <li>■ that it is important for their own progress that they build on strengths and learn from what they have done previously</li> </ul>  | <ul style="list-style-type: none"> <li>■ Ask the pupils to bring in a piece of D&amp;T work that they may have kept from their primary school to show the class, <i>eg a folder, photograph, product</i>. Examples from feeder schools could be used if pupils have not kept their own work. Discuss the work with the pupils, pointing out knowledge and skills they already have and saying how they will use this knowledge and skills in the coming months. Describe why their experience will be useful (year 6 teachers could be invited to contribute to this discussion). Ask the pupils to make a list called 'What I can do already' that focuses on their strengths.</li> </ul> | <ul style="list-style-type: none"> <li>■ list the main areas of knowledge and skills they have gained, <i>eg being able to sketch a design, sew a piece of fabric, carry out a survey</i></li> </ul>  |
| <ul style="list-style-type: none"> <li>■ that there is a wide range of activities and topics in year 7 D&amp;T</li> </ul>   | <ul style="list-style-type: none"> <li>■ Ask the pupils to look at textbooks, activity sheets, project outlines or displays of previous year 7 work or videos of year 7 pupils at work. Discuss similar work that they have done in their primary school. Ask the pupils to design a poster called 'What am I going to learn in D&amp;T this year?', that focuses on areas they want to improve.</li> </ul>  | <ul style="list-style-type: none"> <li>■ identify activities they will carry out and describe what they will learn, <i>eg they list the main topics, projects and products coming up in the near future, and identify their personal targets</i></li> </ul>   |
| <ul style="list-style-type: none"> <li>○ that useful information can be gained by analysing existing products that are similar to the one they are designing</li> <li>○ how to develop ideas and plans into continuous text</li> <li>○ how to make notes and summaries to clarify their ideas and thinking and to inform their later design work</li> </ul> | <ul style="list-style-type: none"> <li>○ Make a class collection of novelties that are given away or gifts such as shaped chocolates. Ask the pupils to evaluate the novelties by sketching them, describing how the shape and packaging have been made, and by tasting the chocolate. Ask the pupils to write a summary evaluating one product.</li> </ul>  | <ul style="list-style-type: none"> <li>○ describe how a product has been made and why it might have been made in that way, <i>eg who a chocolate product is aimed at and how this affects its shape, cost and the chocolate used</i></li> <li>○ write an evaluation summary of a product against design criteria, using paragraphs, subheadings and appropriate punctuation and presentation</li> </ul> |

### Language for learning during product evaluation

- Ask pairs of pupils to evaluate a product against a set of design criteria. Their discussion should lead to note making. They should then develop the notes into a short evaluation (250 words), with subheadings, a short paragraph for each criterion and a final paragraph giving their overall evaluation and recommendations for improvement. Pupils could phrase the subheadings as questions, *eg What is the shape of the chocolate? What are the flavour and texture like? How much does the chocolate cost? Who would buy this chocolate?*
- Remind pupils about the appropriate use of capital letters and question marks.

■ essential activities

○ optional activities

**Learning objectives**

Pupils should learn:

- that it is useful to consider new skills and techniques that they could use to make a product, and how they could learn these

**Possible teaching activities**

- Ask each pupil to find an example of an appropriate product, *eg a glove, shadow or marionette puppet*, and to bring it to class or draw it. Ask them to present their product to the group and explain how it has been made. Ask the pupils to think about the skills needed to make it and to say what new things they will have to learn and how they could learn them.

**Learning outcomes**

Pupils:

- describe how the product has been made and name the materials and processes used

**Points to note****FOCUSED PRACTICAL TASKS (FPTs)**

These practical tasks should focus on the knowledge, skills and understanding outlined in 'About the unit'. They should give pupils an opportunity to practise any new skills they will need during the DMAs, *eg how to use a particular piece of equipment*.

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| <ul style="list-style-type: none"> <li>■ that year 7 may be organised very differently from year 6, and that it is important to settle in as quickly as possible</li> </ul> | <ul style="list-style-type: none"> <li>■ Set up a 'treasure hunt' activity to familiarise pupils with their new environment, <i>eg introducing them to key staff, facilities, procedures, where to go to get help, how to get ready for work in D&amp;T, how to look after their work, how to manage their time</i>.</li> </ul>  | <ul style="list-style-type: none"> <li>■ name their D&amp;T teachers, know where rooms are located, describe how to get ready for work and explain the relevant safety rules</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ to use technical vocabulary to list tools and equipment and explain their main functions</li> </ul>                                | <ul style="list-style-type: none"> <li>■ Give the pupils a quiz on tools and equipment or materials, <i>eg ask them to name, draw and group tools and equipment they already know (for heating, cutting, holding things, joining, shaping and moulding)</i>. Ask the pupils to find out where these are kept in the D&amp;T rooms.</li> </ul>  | <ul style="list-style-type: none"> <li>■ name common tools and equipment and group them according to their use, <i>eg heating, cutting, holding, joining, shaping, moulding</i></li> </ul>                                       |
| <ul style="list-style-type: none"> <li>■ to use tools and equipment safely and independently</li> </ul>   | <ul style="list-style-type: none"> <li>■ Ask the pupils to carry out a 'licence test' activity, <i>eg make a simple cushion, key ring or baked potato with filling</i>, using a design they have been given. Test pupils' use of sewing machines, cookers, drills or hand-tools, and present them with a proficiency certificate to show what they can already use and to encourage independence.</li> </ul> | <ul style="list-style-type: none"> <li>■ demonstrate how to use tools and equipment safely to make simple items or carry out simple processes, <i>eg use a drill safely when making a key ring</i></li> </ul>                    |
| <ul style="list-style-type: none"> <li>■ that it is important to demonstrate their abilities and build on these in year 7</li> </ul>  | <ul style="list-style-type: none"> <li>■ Set up short 'taster' practical tasks that enable pupils to demonstrate their abilities. These incorporate primary school methods and approaches, <i>eg allowing independence to make pupils feel comfortable</i>. They could also be used as diagnostic tools.</li> </ul>  | <ul style="list-style-type: none"> <li>■ demonstrate skills in planning by suggesting next steps, carrying out tasks independently, and using tools and equipment safely</li> </ul>  |
| <ul style="list-style-type: none"> <li>○ that some aspects of knowledge and skills need revision, practice and reinforcement</li> </ul>                                     | <ul style="list-style-type: none"> <li>○ Before embarking on the DMA, decide if some pupils would benefit from a refresher activity, <i>eg making paper patterns (for puppets), casting chocolate (for novelties) or drawing to scale (for bubble packs)</i>. Discuss and demonstrate any new processes that the pupils will need to use, <i>eg shaping, joining</i>.</li> </ul>                             | <ul style="list-style-type: none"> <li>○ revise knowledge and skills learnt in the past, <i>eg how to sketch an idea and add annotations to show which materials and processes they plan to use to make a product</i></li> </ul> |

■ essential activities

○ optional activities

**Learning objectives**

Pupils should learn:

- that modelling products in inexpensive materials is a useful design activity
- that there are procedures and safety rules to follow

**Possible teaching activities**

- Ask the pupils to model simple products, *eg glove puppets using paper and reclaimed materials, or shadow puppets using card and paper fasteners for joints.*
- Demonstrate the safe use of any new tools and equipment that the pupils will need to use, *eg vacuum former, microwave, sewing machine.*

**Learning outcomes**

Pupils:

- make models of simple puppets, *eg glove or shadow puppets from paper or card*
- use tools and equipment safely and explain procedures, *eg by putting a random sequence of instructions for using a vacuum former in the right order*

**Points to note**

■ essential activities

○ optional activities