

Unit 5D Biscuits

Focus – food

ABOUT THE UNIT

This unit develops children's skills, knowledge and understanding of food, building on the previous units in which children prepared food products using simple processes. The children learn how to adapt a basic recipe to develop a product with specified criteria. Investigation of existing products from all cultures will inform design ideas.

This unit could be adapted by focusing on an alternative food product *eg bread* (see Unit 5B 'Bread'), *cakes, pizzas, crumbles or snack bars*. In this unit, there are also opportunities to develop skills in market research, and data-handling or to develop a link with industry.

This unit is an appropriate alternative to Unit 5B 'Bread'.

PRIOR LEARNING

It is helpful if the children have:

- experience of describing the characteristics of food
- skills in using equipment safely
- awareness of food hygiene
- used criteria to inform their design
- used simple evaluation techniques
- used weighing and measuring skills

This unit builds on Units 1C 'Eat more fruit and vegetables' and 3B 'Sandwich snacks'.

VOCABULARY

In this unit, children will use words and phrases related to:

- designing *eg investigate, research, evaluate, brainstorm, consumer, quality, specification*
- making *eg combining, creaming, mixing, finishing, sandwiched, hygiene, antibacterial*
- knowledge and understanding *eg names of equipment and ingredients, names of products, quality control, texture, flavour, crisp, crunchy, sticky, soft dough, elastic dough*

RESOURCES

- range of different types of biscuits
- ingredients for basic recipes
- additional ingredients *eg dried fruit, chocolate chips, food flavouring, oats, bran*
- food equipment – mixing bowls, spoons, forks, knives, weighing scales, cups, chopping board, cutters, baking tray, cooling rack
- oven gloves, washing-up cloths, tea towels, cleaning cloths
- plastic table covers, antibacterial spray, hand-washing and washing-up facilities, aprons
- access to oven

EXPECTATIONS

at the end of this unit

most children will:

have used their experiences of using food to help generate ideas; have explained why they have chosen certain foods and processes; have followed an order of work and have chosen equipment appropriately; have made and evaluated a new biscuit for a particular occasion/person; have used tools and equipment safely and tried to be accurate in their making

some children will not have made so much progress and will:

with help, have chosen appropriate ingredients to adapt a recipe and make a product

some children will have progressed further and will:

have evaluated several ideas and drawn up a specification to inform their design; have applied their understanding of the functional properties and characteristics of ingredients; have used tools and equipment accurately and safely to create a quality outcome that meets their original design specification

LEARNING OBJECTIVES

POSSIBLE TEACHING ACTIVITIES

LEARNING OUTCOMES

POINTS TO NOTE

CHILDREN SHOULD LEARN

CHILDREN

INVESTIGATIVE, DISASSEMBLY AND EVALUATIVE ACTIVITIES (IDEAs)

- that biscuits come in many forms eg *sweet and savoury*, with a variety of shapes, textures and finishes
- to develop skills in evaluating and describing food characteristics
- that products are designed for different users and this is an important consideration when designing

- Make a list of different types of biscuits and discuss their similarities and differences. *What is a biscuit? When do we eat biscuits? Which of the biscuits have the children tried before? Which do they prefer? Have they always liked the same biscuit or have their tastes changed? Do they know the preferences of other people eg a parent, a younger sister, an elderly relative?*
- Provide a variety of biscuits eg *sweet, savoury, plain, flavoured, sandwiched, enrobed* and discuss with the children appearance, shape, cost, flavour, texture. Record as a profile for each biscuit.
- Read packaging to find out the main ingredients used and discuss with the children their possible function.

- use appropriate vocabulary to describe products including their sensory characteristics
- compare biscuits in terms of appearance, flavour, texture and cost
- understand that people have different preferences and that designers need to consider this when designing

Links to this unit

Science: Units 3A ‘Teeth and eating’, 5A ‘Keeping healthy’, 5D ‘Changing state’

Information technology: Units 4D ‘Collecting and presenting information: questionnaires and pie charts’, 5B ‘Analysing data and asking questions: using complex searches’, 5D ‘Introduction to spreadsheets’

Mathematics: Number (percentage, reduce to..., estimate, approximate, symbols > <)

Literacy: Reading recipes, writing instructions. Investigate the language features of recipes as an example of a particular explanatory text.

Recipes for similar products could be used for comparison eg *What makes one text easier to read? How does the presentation influence understanding?*

Content

- This unit can be constrained, developed or extended according to the children’s previous experience with food. Children can adapt the flavour, colour, shape and toppings when designing their own biscuits. It is possible to limit the range of additional ingredients used.

- There are opportunities within this unit to look at foods from a variety of cultures eg *cookies, oatcakes, flapjacks, matzo biscuits, Chinese fortune cookies.*

- There are opportunities to develop IT skills through this unit eg *data handling, market research into consumer preferences, data presented in graphical format, comparing costs of different ingredients and calculating total cost of biscuits.*

Health and safety

When carrying out a risk assessment for this activity, teachers will need to consider the materials, tools and equipment being used.

In addition, the following points should be noted:

- parental permission should be sought before tasting sessions in order to identify any dietary or cultural requirements for consideration eg *nut allergy*

- hygiene practices should be observed eg *surfaces cleaned down and wiped with antibacterial cleaner; a plastic table cover kept for food activities and used to cover wooden/old tables; aprons provided for food preparation; access to hand-washing and washing-up facilities and appropriate storage facilities for food*

- children should learn safe practices in relation to equipment eg *the oven, knives*

Out-of-school activities and homework

Children could find out more about biscuits by researching recipes, looking at products in the shops, looking at text on packaging and carrying out a survey of people’s preferences. Children could also be encouraged to try out other recipes at home.

FOCUSED PRACTICAL TASKS (FPTs)

- about physical and chemical changes in food
- the processes involved in making biscuits
- to follow instructions
- to handle food safely and hygienically
- ways of adapting a basic recipe
- to draw conclusions from research

- Demonstrate how to make a basic biscuit recipe. Demonstrate ways of mixing, combining and shaping. Demonstrate safe use of equipment eg *the oven*. Remind children about hygienic practices when handling food.
- Talk about ingredients that could be added to the basic biscuit mixture. Discuss ways of finishing. Ask children to divide up the mixture and experiment with some of the different ways of customising the biscuits. *What is the impact of added ingredients, and different finishes/shapes on the end product?*
- Children could compare a number of different biscuit mixtures (soft and elastic) eg *ginger biscuits, shortbread biscuits, flapjacks, matzos, fortune cookies, digestives*. Discuss with the children the effect of the different ingredients and methods on the end product.

- follow a recipe to make biscuits
- have ideas for adapting the basic recipe
- know and practise the rules of basic food hygiene
- work safely
- evaluate different outcomes and draw conclusions about the impact of added ingredients, different finishes/shape on the end product

DESIGN AND MAKE ASSIGNMENT (DMA)

Design and make a biscuit as a gift for a festival or celebration

- to generate ideas through brainstorming
- to draw up a specification for their design
- to evaluate ideas according to the specification and any other constraints eg *cost*
- to select appropriate ingredients and equipment
- to plan the main stages of making
- to make accurately
- to evaluate their work

- ★ Explain the task and brainstorm the possibilities – which type of mixture to use, added ingredients, shape of biscuits, ways of finishing.
- ★ Ask the children to work in groups to discuss the opportunities and to draw up a simple design specification. *The biscuit should..... What are the most important features? How can you achieve this? Why will it be suitable for the festival or celebration?*
- ★ Ask the children to produce a range of design ideas and evaluate them against their specification. *Will it do what you intend it to? What do other people think? How can you improve it? What are the best parts of this design?*
- ★ Ask them to select a final idea and to plan out the main stages of making and to list the ingredients and equipment. *How much time do you have? What will you do first? In what different ways could you do this? What will you need? Who will do what?*
- ★ Discuss with the children quality control eg *making the products consistent through accurate measurement, use of cutters, weighing dough.*
- ★ Ask the children to evaluate their products against the design specification and record improvements they might make.
- ★ If possible, the children can refine the design and make the improved product.

- apply what they have learnt through IDEAs/FPTs in their designing and making
- generate and develop ideas through brainstorming and discussion
- use a specification to inform their design
- select food ingredients with appropriate qualities to achieve the desired outcome
- plan the main stages of making
- make accurately and safely with regard to the quality of the end product
- evaluate their work and identify how they have acknowledged constraints in their design

- essential activities
- ★ assignment stages (all are essential)
- optional activities

