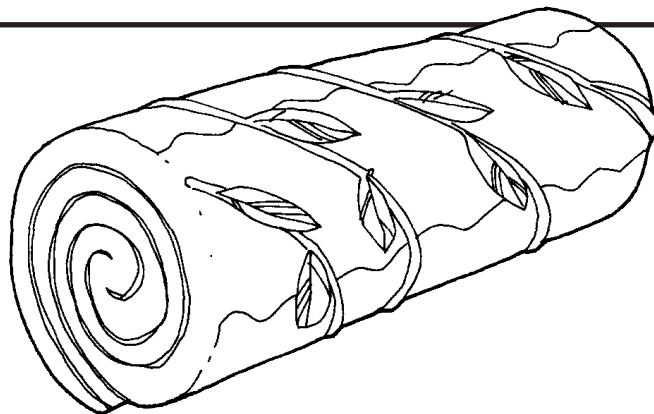


# Creative Food

## *The big picture*

### Task

To design and make a novelty product suitable for sale as a small gift or souvenir.



## The story so far

Creative Food is a small firm that specialises in producing small gifts and souvenirs. One of its clients is a garden centre which has a butterfly farm and aquarium. The students' task is to develop

products that could be sold in the centre's gift shop. (Other possible settings are a zoo, museum, stately home, theatre, summer fair. etc.)

## Learning

### Designing

Using natural form as a basis for design.

### Making

Shaping, forming and decorating food materials to a high standard of finish.

Using batch production techniques (optional).

### Technical matters

Properties of food materials as foams and emulsions.

### Commercial matters

Nutrition and costing.

## Design decisions

### The sort of product

The student can decide the nature of the product to some extent – plain biscuits, decorated biscuits or decorated small cakes.

### The point of sale

The student is unlikely to decide this as the teacher will probably set the nature of the retail outlet for the class.

### The customer

The student can decide whom the product is for.

### The performance of the product

The student can decide the following:

- main textures – soft, firm or hard, dry or moist, crumbly, crunchy or brittle;
- main flavour – sweet or savoury.

Plus use of flavour enhancers – fruit, spices, herbs.

### The appearance of the product

The student has to choose an appearance that relates to the nature of the retail outlet, achieved through shape, colour and decoration.

### The materials

The student can choose a basic recipe for a particular sort of sweet or savoury biscuit or cake that gives the desired texture, and then choose from the following additional food materials to modify the flavour:

- dried fruits – raisins, sultanas, currants, apricots;
- herbs – thyme, sage, oregano, dill, mint;
- spices – cinnamon, ginger, cumin, mixed spice, vanilla;
- seasonings – salt, black or white pepper, vinegar, tabasco, soya sauce;
- non-fattening sweeteners;
- other savoury flavourings – cheeses, Bovril, Marmite.

## Products

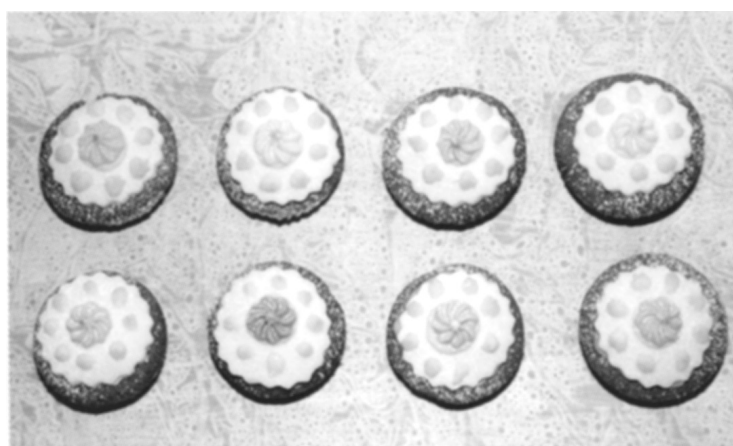
In this school the teacher allowed each students to develop decoration skills by icing fairy cakes.



This student has developed a complex product involving two layers of chocolate flavoured biscuit, a butter cream filling, icing, a smaller chocolate flavoured biscuit and icing!



These skills were then put to good use in producing a batch of decorated biscuits. Note how the design has become simpler for batch production with quality assurance.



## Values

### Technical

Students should consider the degree of precision required for the product: that is, how exactly the recipe should be followed (to the nearest 1 g or 10 g). They should also consider the quality of finish, and balance this against the extra time required for improvement.

### Economic

Students should consider the idea of value for money or worth in buying a non-essential item and how the price of a novelty depends on the market in which it is being sold.

### Environmental

Students should consider whether it is justifiable to use materials for a non-essential item like a novelty. They can do this by using the winners-and-losers evaluation.

### Social

Students should consider the idea of a novelty or souvenir both as a gift and as a memento.

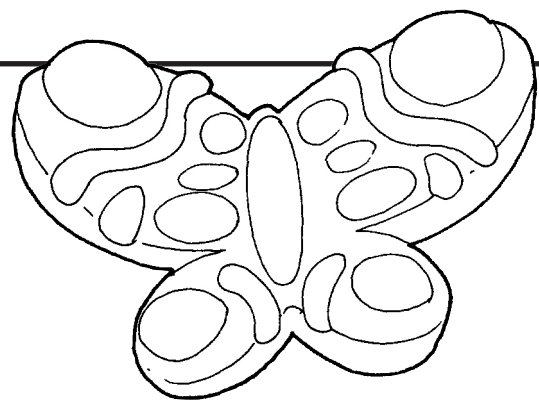
### Moral

Students should consider whether the creation of a market (for gifts and souvenirs) within the garden centre is justifiable.

### Aesthetic

Students should consider the quality of the images that are used in novelties and souvenirs – the kitsch, the tacky, the unusual and Intriguing, the respectful, the derisive.

# Creative Food



## *The detail*

### Sample brief

Design and make a novelty product suitable for sale as a small gift or souvenir. It will be suitable for sale at a particular retail outlet such as a garden centre, zoo, museum, stately home, theatre, etc. It should be part of a collection that reflects the nature of the retail outlet.

### Sample specification

#### What the product has to do:

- be suitable as a gift or souvenir for a particular group;
- be part of a collection of similar products.

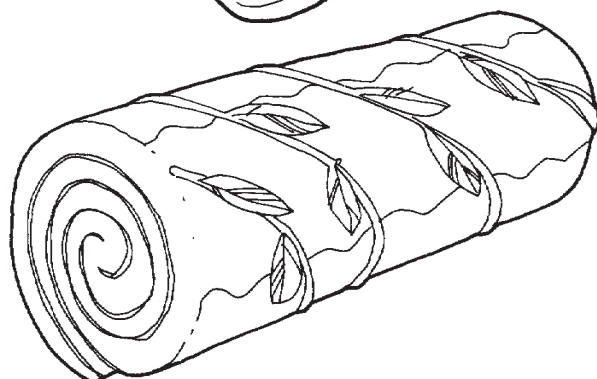
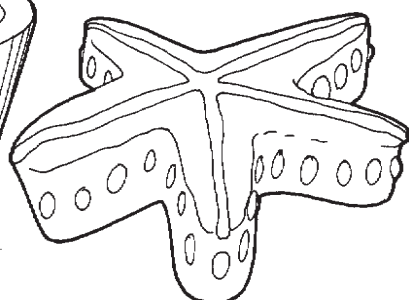
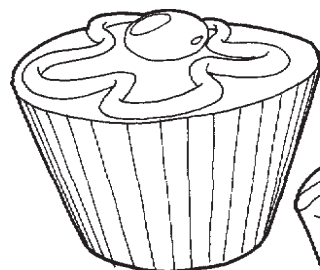
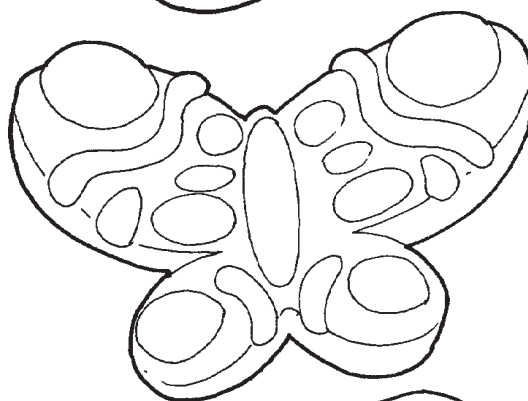
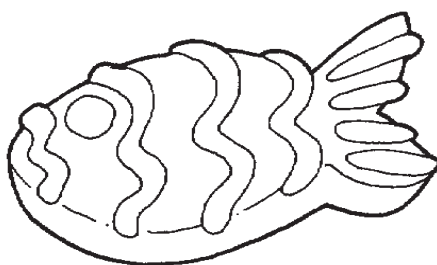
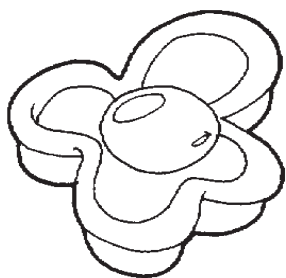
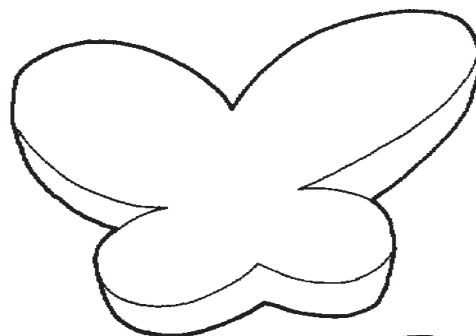
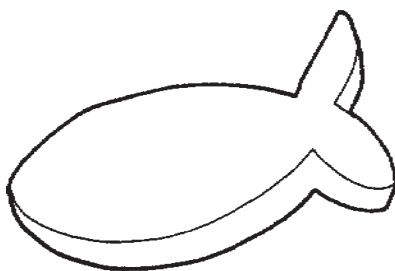
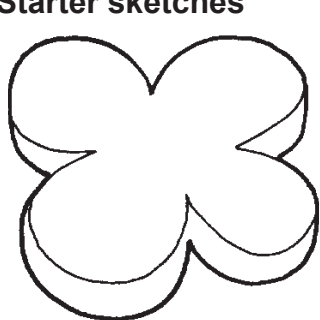
#### What the product should look like:

- be appealing to the identified purchasing group;
- reflect the nature of the retail outlet.

#### Other features:

- suitable for batch production;
- fairly low cost;
- limited environmental impact, e.g. uses recyclable or recycled materials in the packaging (optional).

### Starter sketches



## Nuffield teacher talk

'How can those pictures of tropical fish help you? That's right - ideas for shapes.'

'Try drawing the outline of the angel fish: start with a box, add the top and bottom fins, then the tail, then the mouth.'

'I know it's gone wrong but it's nearly OK. Put a sheet of thin paper over the top and trace the good bits and change the bad bits.'

'It's too big for a biscuit. How can you make it smaller?'

'You want to do a round biscuit that breaks up into segments.'

'Will it have to be thick or thin? That's right, thin. Will it need to be soft or crisp? That's right, crisp. Find a biscuit recipe that will give thin, crisp biscuits.'

'How will you get it to break in the right place? You might need to do some tests on how deep to make your snap-lines'

'So you want to put an icing butterfly on the biscuit. Ask yourself this: "Do I want to draw an outline with the icing or do I want it to be a filled shape?" If it's an outline, draw one on a piece of paper and practise going over it with the icing bag. If it's a filled shape, think about how you might make a simple cutter.'

'You want to give it more of a savoury taste. I get it - the biscuit that bites back! Well, try making up enough of the mixture for twelve biscuits and mix in a small amount of Marmite. Take out enough for three biscuits and then add another small amount of Marmite and take out enough for three biscuits, and so on. You'll get four lots with each lot tasting more savoury than the last lot.'

## Resource Tasks

### General design

For the first Capability Task in Year 7:

SRT 1 Writing design brief

SRT 2 Specifying products

SRT 8 Using image boards

SRT 21 Using simple shapes and guidelines

SRT 37 Evaluating outcomes – user trips

For the second Capability Task in Year 7:

SRT 11 Brainstorming

SRT 12 Metamorphosis

SRT 22 Using grids – enlarging and reducing

SRT 29 Putting products onto backgrounds

SRT 17 Appreciating products – style

For the third Capability Task in Year 7:

SRT 13 Pattern design

SRT 9 Choosing and manipulating images

SRT 10 Capturing and manipulating images

SRT 18 Appreciating products – colour

SRT 41 Cool or whatt? Developing your design vocabulary

### Focus area design

FRT 2 Simple user trip FRT 4 Ranking tests

### Communication

CRT 11 Presenting food product designs

### Making

(See FRT 4)

### Technical

FRT 1 Describing food

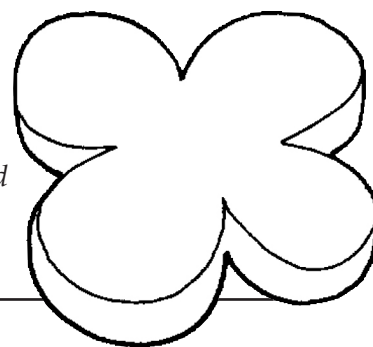
FRT 12 Structure of foods: Sols/gels, emulsions and foams

### Commercial

FRT 7 Nutrition 1

FRT 9 Costing

HSRT 2 Being safe with food



## Case Studies

Developing a new product. *Student's Book* pages 181-6.

Pop Tarts, downloadable from the website <http://www.secondarydandt.org>

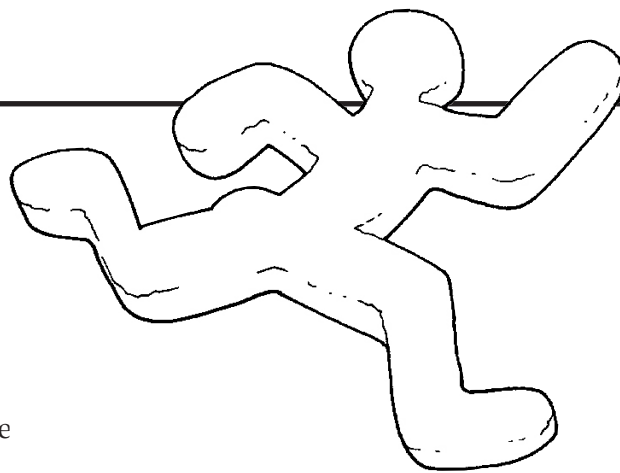
## ICT opportunities

Use www to find out about food gifts and souvenir products already available. Try putting '+food + gifts' in the search engine. Look directly at <http://www.greatfood.com/index.html>.

Use a digital still camera to record the food products before they're eaten. Use a digital video camera to record food processing clips.



# Healthy heart



## *The big picture*

### Task

To design and make food products that will promote well-being, an especial concern for maintaining a healthy heart

### The story so far

The school has decided to launch a sensible lifestyle campaign with a focus on 'the healthy heart'. The students' task is to provide samples of healthy food for the opening of the campaign,

which will feature an exhibition in the school foyer and healthy lifestyle top tips being broadcast on the local radio station.

## Learning

### Designing

To research an area of information about people's behaviour (in this case, their exercise and eating habits) and use this to inform design decisions.

### Making

Shaping, forming and decorating food materials to a high standard of finish.

Using batch production techniques (optional).

### Technical matters

Properties of food materials such as foams and emulsions.

### Other matters

Nutrition and costing.

## Design decisions

### The sort of product

The student can decide on the nature of the product to some extent – a snack that contributes to healthy eating – a cake or biscuit of some sort, or a topping for a baked potato.

### The point of sale

This has been decided by the teacher – at the exhibition used to open the sensible eating campaign.

### The customer

The student can decide whom the product is for.

### The performance of the product

The student can decide the following:

- ways to reduce ingredients that contribute to heart disease;
- ways to increase ingredients that contribute to heart well-being;
- main textures – soft, firm or hard, dry or moist, crumbly, crunchy or brittle,
- main flavour – sweet or savoury;
- the use of flavour enhancers: fruit, spices, herbs.

### The appearance of the product

The student has to decide on an appearance that promotes a sensible lifestyle, achieved through shape, colour and decoration.

### The materials

The student can choose a basic recipe for a particular sort of sweet or savoury biscuit or cake, or baked potato topping that gives the desired texture, and then find ways to improve it for the purposes of healthy eating – reduced fat, reduced salt, increased fibre, reduced refined sugar. The student can also choose from the following additional food materials to modify the flavour:

- fresh fruit and vegetables: tomatoes, cucumber, pepper, pineapple, apple, melon;
- dried fruits: raisins, sultanas, currants, apricots;
- herbs: thyme, sage, oregano, dill, mint;
- spices: cinnamon, ginger, cumin, mixed spice, vanilla;
- seasonings: salt, black or white pepper, vinegar, tabasco, soya sauce;
- non-fattening sweeteners;
- other savoury flavourings: cheese, Borden®, Marmite®.

### Products

Having completed some Resource Tasks, the students were given access to some of starter recipes and told to choose one to modify to meet the criteria of the British Heart Foundation:

10 g sugar per 100 g product      20 g fat per 100 g product  
5 g saturated fat per 100 g product      3 g fibre per 100 g product  
0.5 g sodium per 100 g product



#### Courgette and tomato soup

Starting with a cream of mushroom soup recipe the student made the following changes:

Courgettes and tomatoes instead of mushrooms to increase fibre and vitamins.

Margarine instead of butter to reduce saturated fat.

Water for milk and stock to reduce fat and sodium.

#### Fruit biscuits

The student made the following changes:

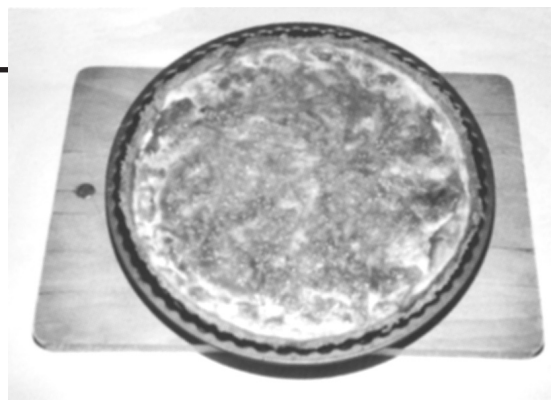
100 g plain flour to 50 g plain flour plus 50 g wholemeal flour to increase fibre.

50 g margarine for butter to reduce saturated fats.

50 g sultanas added to increase fibre.

The students were able to use simple arithmetic

to develop modifications that met British Heart Foundation criteria. They were able to explore the nutritional consequences of their modifications by using simple nutritional analysis software.



#### Asparagus and cheese quiche

The student made the following changes:

200 g plain flour to 100 g plain flour plus 100 g wholemeal flour to increase fibre.

Semi skimmed milk for plain milk to reduce fat content.

Asparagus instead of bacon (as in classic quiche recipe) to reduce fat and add fibre.

Low fat cheese for ordinary cheese to reduce fat.



#### Bread

The student made the following changes:

200 g plain flour plus 100 g wholemeal flour to 150 g plain flour plus 150 g wholemeal flour to increase fibre.

50 g margarine to 25 g margarine to reduce fat.

Egg omitted to reduce cholesterol.

Salt from 4 g to 2 g to reduce sodium.

### Values

#### Technical

Students should appreciate the technical excellence of the heart as a pump and understand that it requires appropriate maintenance to function efficiently.

#### Economic

Students should consider the place of promotion in developing a market for a product or a service.

#### Environmental

Students should consider the influence of the

environment on our personal well-being.

#### Social

Students should consider the importance of making nutritional information accessible to all.

#### Moral

Students should consider the importance of a health care service that is equally accessible to all.

#### Aesthetic

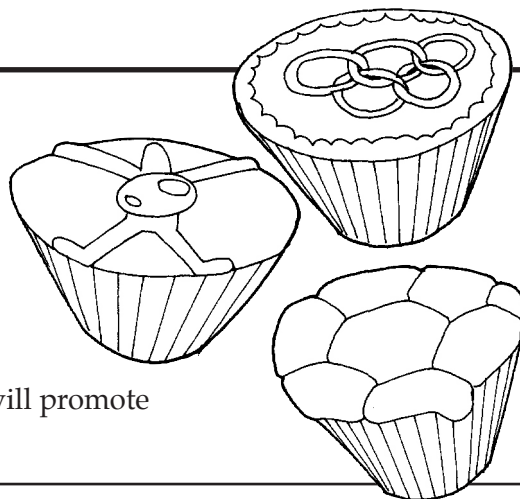
Students should consider the elegance of the respiratory and circulatory systems.

# Healthy heart

## The detail

### Sample brief

Design and make food products that can be eaten as snacks that will promote well-being, with especial concern for maintaining a healthy heart.



### Sample specification

#### What the product has to do:

- be suitable as a snack for a particular group;
- be part of a collection of similar products.

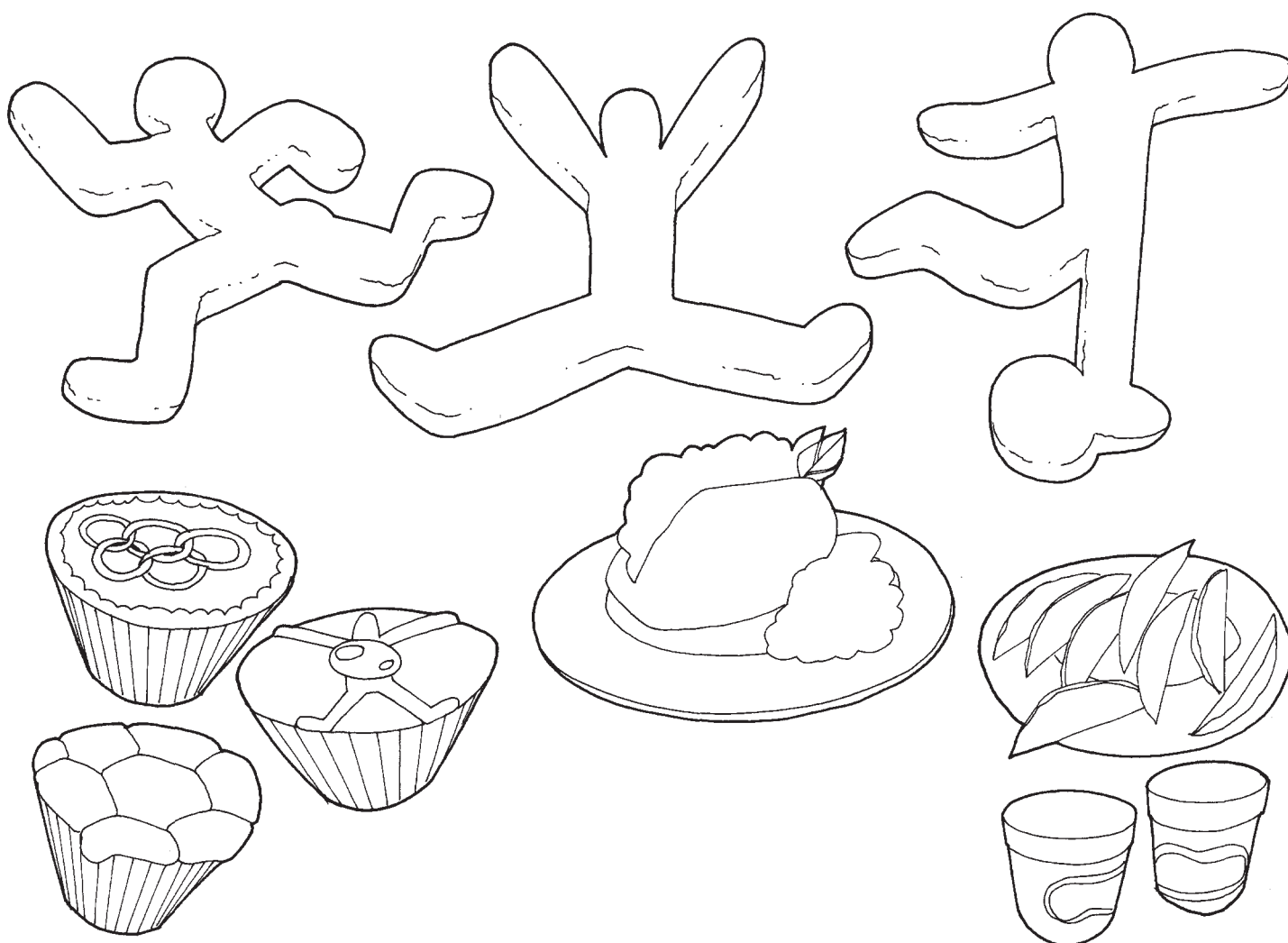
#### Other features:

- suitable for batch production;
- fairly low cost.

#### What the product should look like:

- be appealing to the identified purchasing group;
- reflect a sensible lifestyle.

### Starter sketches



## Nuffield teacher talk

'So, what have you got on your image board about healthy living?'

'People keeping fit.'

'Try tracing the people and then make the shapes really simple. Then use those shapes for your biscuits.'

'You want a set of heart-shape biscuits getting smaller. OK, try folding a piece of paper in half and cutting it so that it opens out into a heart. OK, so it's gone wrong first time.'

Have a few more goes till you get it right. That's it. Now use that as a template to cut out one to keep. Now carefully cut it down so you've got a smaller version. and so on. You can use them as templates to cut round your biscuit dough.'

'You want to put a broken heart on the savoury biscuit with lots of fat and an all-in-one piece heart on the plain low-fat biscuit. What'll you make the heart from? You think you can cut it out of a red pepper. See if you can use the flexible plastic strip to make a cutter.'

'OK, so low-fat cottage cheese for the basic topping but you think it looks a bit plain. How could you colour the cheese? Yes, simple food colour dyes will do. What colours say healthy? Reds and greens - OK. Try making up some red and green cottage cheese and using it as a dip for baked potato pieces. Lots of possibilities - green in middle, red round the outside, or vice versa, or two half-circles, one of each colour, or mainly green with little red blobs. You'll need to check out what happens where the red meets the green!'

## Resource Tasks

### General design

For the first Capability Task in Year 7:

- SRT 1 *Writing design briefs*
- SRT 2 *Specifying products* SRT 8 *Using image boards*
- SRT 21 *Using simple shapes and guidelines*
- SRT 37 *Evaluating outcomes – user trips*

For the second Capability Task in Year 7:

- SRT 11 *Brainstorming*
- SRT 12 *Metamorphosis*
- SRT 17 *Appreciating products – style*
- SRT 22 *Using grids – enlarging and reducing*
- SRT 29 *Putting products onto backgrounds*

For the third Capability Task in Year 7:

- SRT 9 *Choosing and manipulating images*
- SRT 10 *Capturing and manipulating images*
- SRT 13 *Pattern design*
- SRT 18 *Appreciating products – colour*
- SRT 41 *Cool or what? Developing your design vocabulary*

### Focus area design

- FRT 2 *Simple user trip*
- FRT 4 *Ranking tests*

### Communication

- CRT 11 *Presenting food product designs*

### Making

(see FRT 4)

### Technical

- FRT 1 *Vocabulary*
- FRT 12 *Structure of foods: Sols/gels, emulsions and foams*

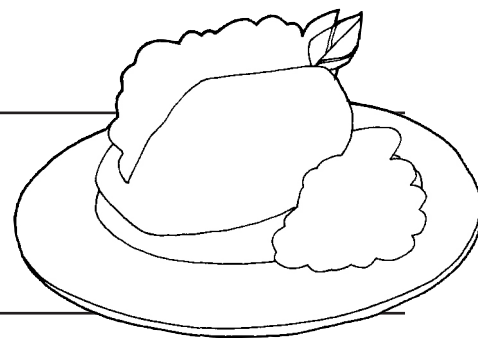
### Commercial

- FRT 7 *Nutrition 1*
- FRT 9 *Costing*
- HSRT 2 *Being safe with food*

## Case Studies

Developing a new food product, *Student's Book*, pages 181–6.

Pop Tarts, downloadable from the website [www.secondarydandt.org](http://www.secondarydandt.org)



## ICT opportunities

Use the Internet to find out about recipes. Try putting '+healthy +recipes' in the search engine. Look directly at <http://mayohealth.org/mayo/recipe/htm/maintoc.htm>.

Use a digital still camera to record the food products before they're eaten.

Use a digital video camera to record the food processing clips.