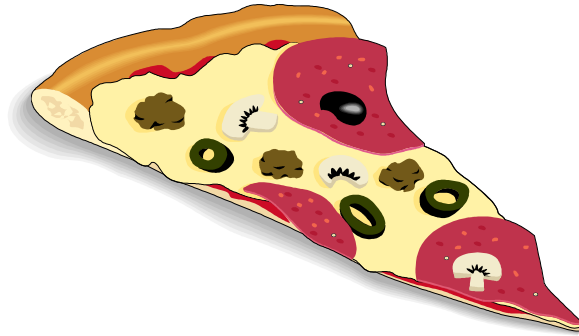


# Year 8 - Pizza



**Previous targets:** \_\_\_\_\_

**Attitude to learning:**

	Always	Usually	Occasionally	Rarely
Class work	1	2	3	4
Homework	1	2	3	4
Participation	1	2	3	4

**Subject criteria:**

Research	Ideas	Evaluation	Planning	Making	K&U

Target	Areas for Improvement	Target	Areas for Improvement
	Complete all set tasks		Annotate sketches/ideas
	Complete homework		Add colour to your sketches/ideas
	Read instructions carefully		Add more detail to your research/evaluations
	Focus on the presentation of your work		Label star diagrams & include a key
	Submit booklet on the due date		Add more detail to timeplans

**Optional Comment/Target:** \_\_\_\_\_  
 \_\_\_\_\_

Name:

TG:

Date:

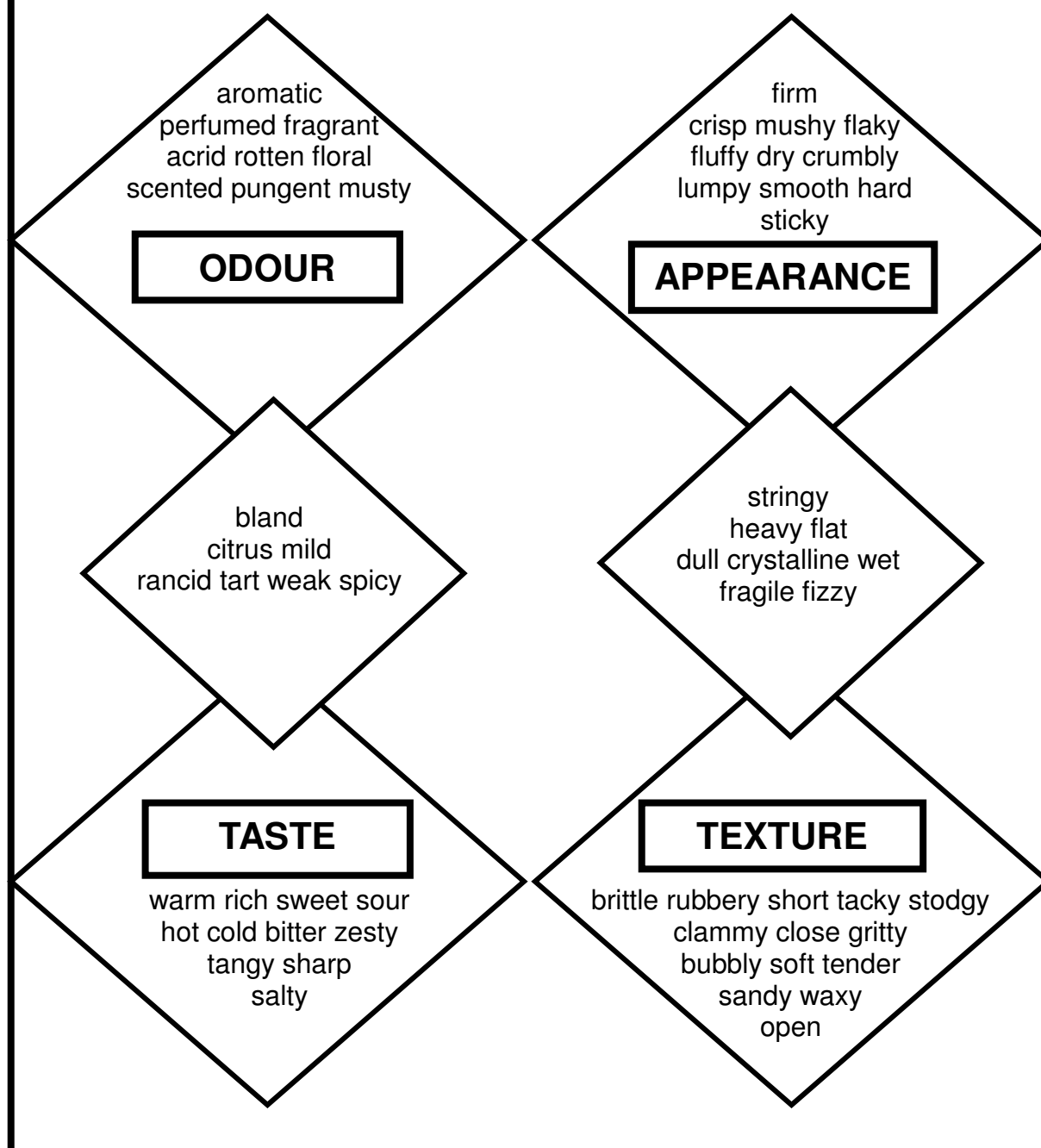
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# SENSORY VOCABULARY



*Try using these words to describe your work in Food Technology*

*Add your own words to the chart.*

## Disassembly of Frozen Pizza

Name of pizza.		
Draw and label a cross-section of the pizza including measurements		
What is the weight of the pizza?		
What is the price of the pizza?		
List the ingredients used to make pizza base.		
List the ingredients used to make the topping.		
Which target groups would buy the pizza and when might the pizza be eaten?		
How is the pizza packaged?		
How should the pizza be stored?		
Explain how the pizza should be cooked.		
Describe the appearance of the pizza.		
Describe the texture of the pizza.		
Describe the taste of the pizza.		

# Pizza Research

[illegible]

## Design Specification for Pizza

- Target group:
- Base ingredients:
- Filling ingredients:
- Number of portions:
- Price range:
- Sensory characteristics:
- Special claims:
- Storage instructions:
- Packaging:
- Shelf life:

Pizza Sensory Evaluation of bread based pizza

Pizza Sensory Evaluation of scone based pizza

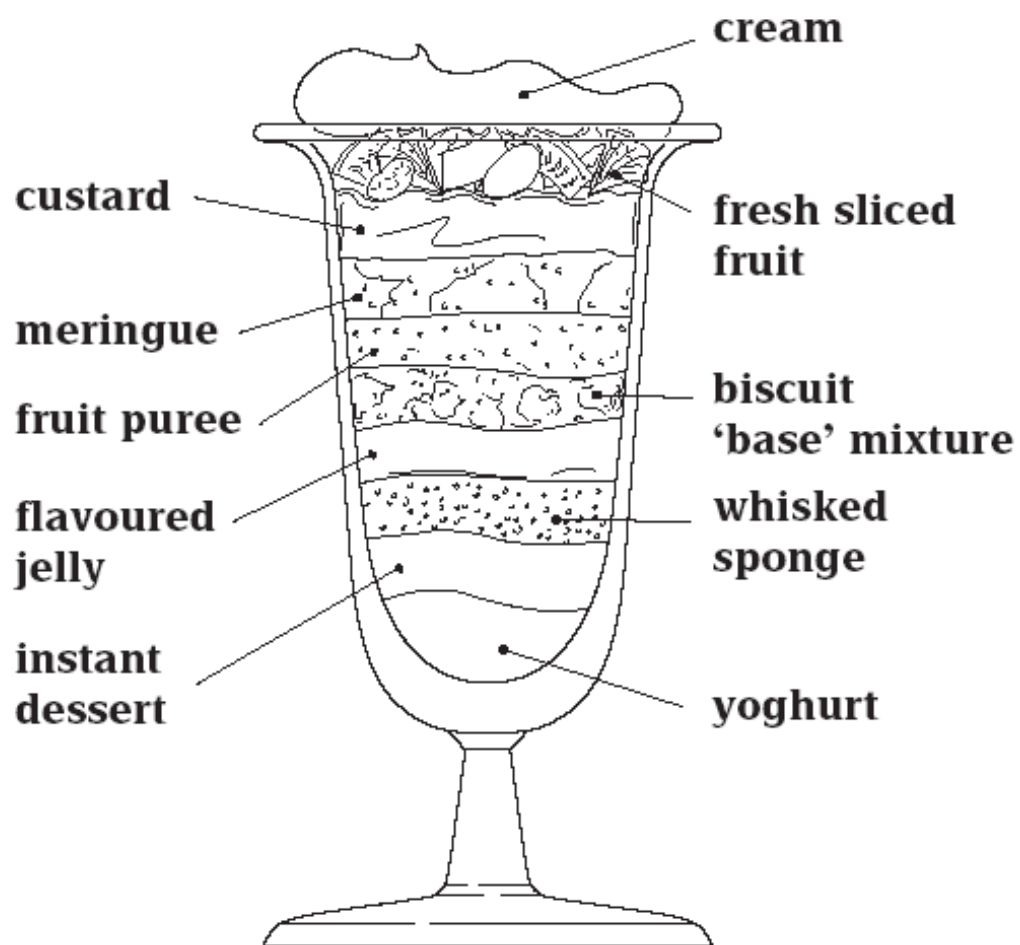


## Design Brief - Layered Desserts

Single portion chilled desserts are becoming increasingly popular. The company has carried out research about chilled desserts and found the product must meet the following criteria:

- Contain three layers
- Be sold as a single portion
- Appeal to both children and adults
- Be visually appealing

Example Ingredients used in a layered dessert





## Thickening Experiment Evaluation

Evaluate the instant desserts using the table below:

Flavour	Appearance	Texture	Taste	General Comment

1. Explain how these desserts are thickened?
2. How is this thickening process different from the starch experiments you carried out in year 7?
3. Which dessert do you prefer and why?

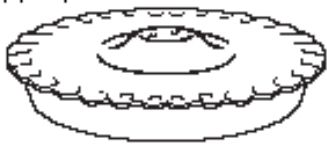



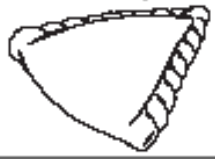

## Dessert Ingredients

Ingredient	What is the origin or what is it made from?	How is it thickened or set?	Which nutrients does it contain?	Sensory description
Fruit				
Cream				
Custard				
Meringue				
Fruit puree				
Sponge				
Jelly				
Yoghurt				
Instant dessert				
Biscuit base				

## Exploring Materials

### ***Think about it!***

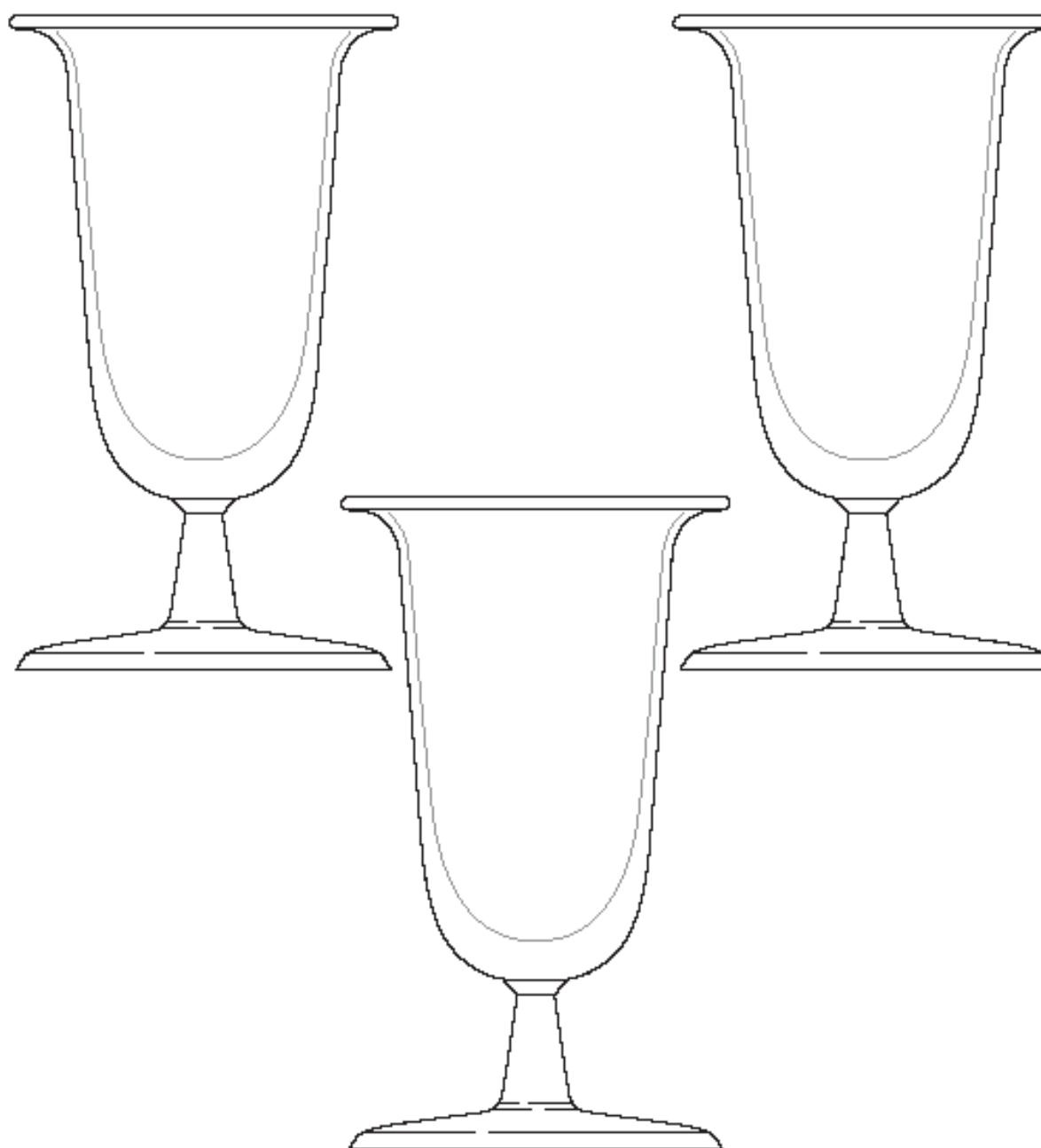
Look at the illustrations and then list the component parts of each of the desserts. Next, identify the nutrients that are included in the dessert. You may need to use a recipe book to help you.

Name of dessert	Ingredients	Nutrients included
Apple pie 	Shortcrust pastry (flour and fat), stewed apples, sugar	Starch, sugar, vitamin C, NSP, fat
Cheesecake with fruit topping 		
Fresh strawberries 		
Lemon meringue pie 		
Fruit turnover/pastry 		
Trifle 		

## Developing a Design for a Layered Dessert

**D** Use this worksheet to help develop ideas for a new, layered dessert.

- 1 In each container draw three layers and add a decoration that you think will make an exciting dessert.
- 2 Annotate each of the layers explaining why you have made these choices. You may want to comment on flavour, appearance and texture.



## Product Specification for a Layered Dessert

Name of product:

Quantity	Ingredients	Function

Target group:

Time	Method

## Layered Dessert Sensory Testing

Your aim was to design a layered dessert which achieved the following criteria:

- Contain three layers
- Be sold as a single portion
- Appeal to both children and adults
- Be visually appealing

## Layered Dessert Evaluation

[illegible]

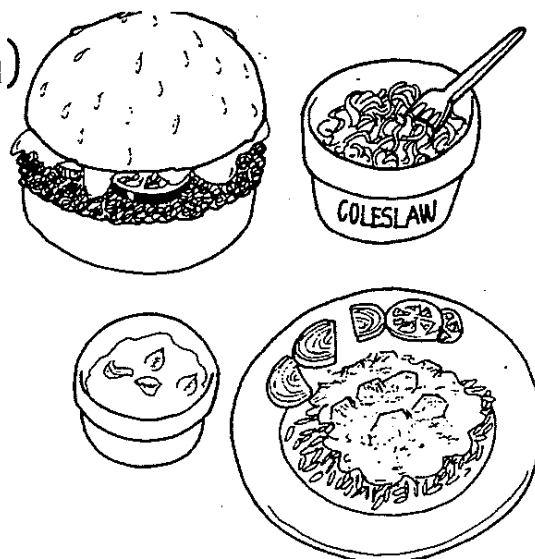
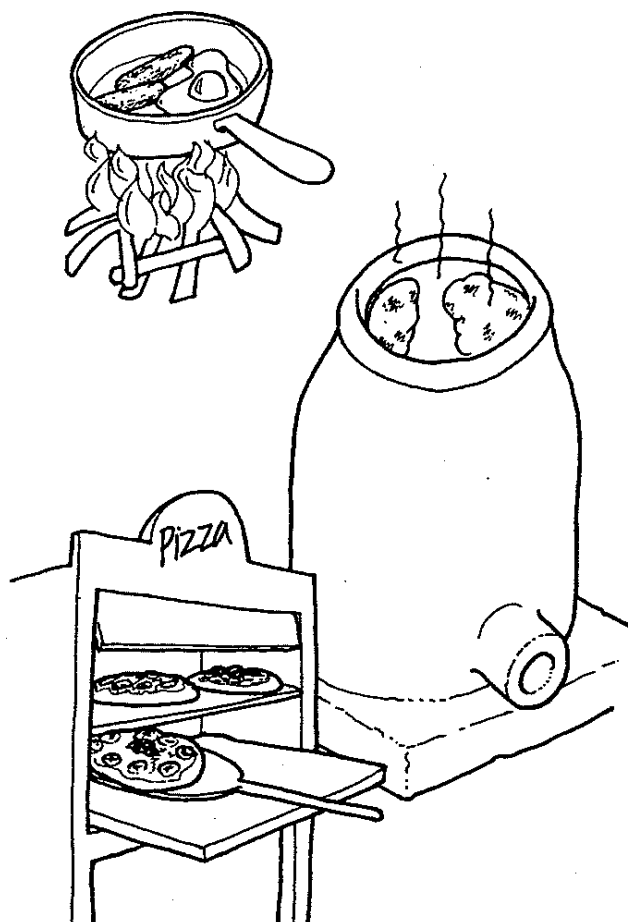
# Things are hotting up! (a)

Some foods are eaten raw and some are cooked. Meals can be a mixture of the two. In this topic you will investigate some different methods of cooking food.

## Hot? Or not?

Think about all the meals eaten in a day. Some of those foods are eaten raw and some are cooked. Usually a mixture of raw and cooked foods are eaten.

Cooking has been around since fire was first discovered. Cooking actually means to prepare food by the action of heat. When heat is applied to food it is changed in several ways apart from getting hot. These changes are often for very important reasons.



## Why is food cooked?

- To kill bacteria and make food safe to eat – bacteria die at 72°C and above.
- To soften food – imagine eating a plate of raw spaghetti!
- To make food easier to digest – some foods like parsnips are very hard to eat and digest when raw.
- To improve the flavour – fried onions taste sweeter than raw onions.
- To add colour – raw cake mixture becomes a lovely golden brown.
- To make food last longer – cooking destroys the yeasts, moulds and bacteria which can quickly turn food bad.
- To provide a wonderful aroma and make people feel hungry!

## How is food cooked?

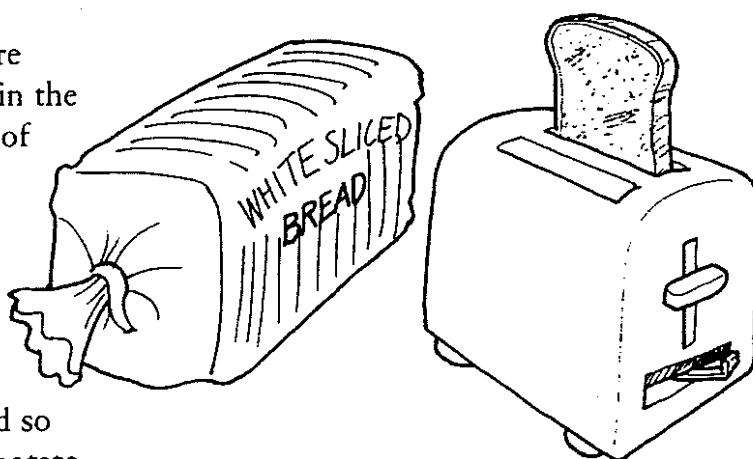
The heat has to get inside the food in order to cook it, so how does it do that? Heat passes from a heat source into the food in three ways: conduction, convection and radiation. These are explained in Topic 2.

The heat source used to cook food may come from gas, electricity or a solid fuel such as coal or wood.



## Changing the colour

Many foods change colour when they are cooked. A good example of this is seen in the toasting of bread. The surface of a slice of white bread is gradually turned golden by the radiant heat from the grill.

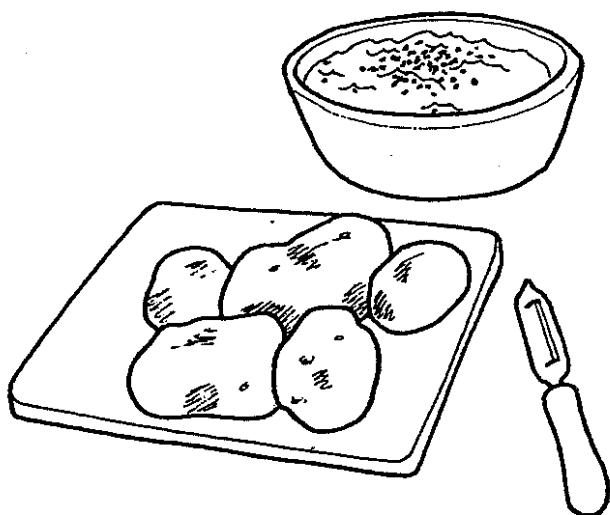


## Changing the texture

Cooking food can change its texture and so make it easy to eat. Think about a raw potato which has a hard texture and compare it with a boiled potato. The cooked potato is not only softer and more pleasant to eat but it is easier to digest.

Different ways of cooking food may be divided into dry methods and moist methods.

- Dry methods include grilling, roasting, barbecuing and baking.
- Moist methods include boiling, simmering, stewing, poaching, steaming, frying and pressure cooking.



### Have you heard?

When fruit and vegetables are cooked in water they become more translucent (think of cooked apple) because the gas between the cells in the apple is replaced with water.

### And finally ...

- 1 Which dry or moist methods of cooking could be used to cook the following foods:
  - i) potatoes
  - ii) chicken drumstick
  - iii) eggs?
- 2 List five foods that need to be softened before they can be easily eaten.
- 3 Suggest three foods that improve in colour when cooked.
- 4 The aroma of some foods when they are cooking is very pleasant. Which three foods do you think have a delicious aroma?

## Heat Transfer

# Turn up the heat (a)

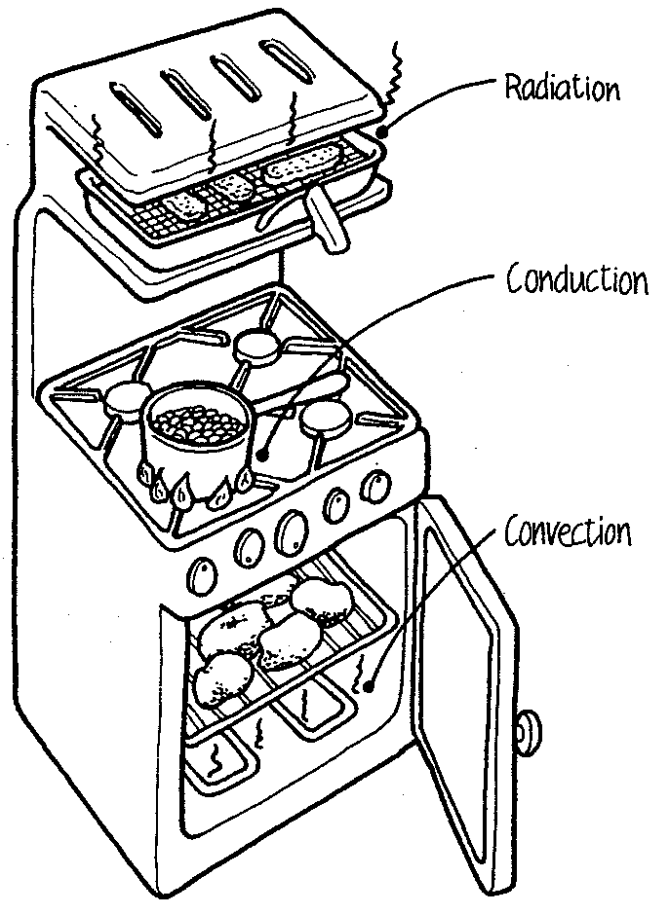
In this topic you will turn up the heat to produce a tasty new snack using the hob and the grill.

## To grill or not to grill?

To cook food, heat energy needs to pass into it. There are three main ways in which this occurs: conduction, convection and radiation.

- **Conduction** usually takes place on top of the cooker (hob) as in boiling vegetables or heating up soup.
- **Convection** mainly occurs in the oven such as when baking a cake or roasting some meat.
- **Radiation** mainly occurs under the grill such as when toasting bread or grilling sausages.

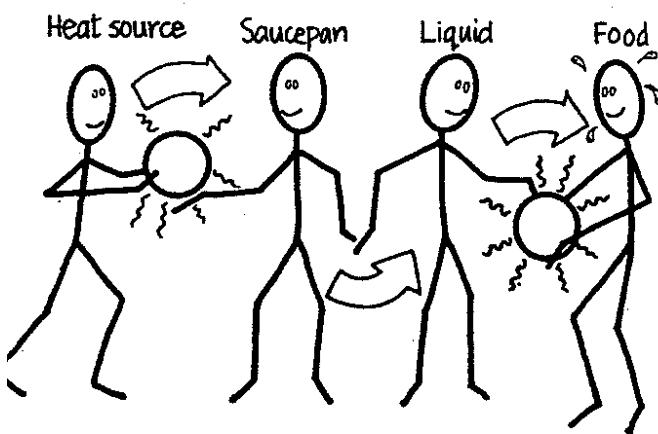
Sometimes conduction and convection are used together in cooking, for example when poaching fish in a liquid on the hob, or a cake is being baked in a metal tin in the oven.



## Conduction

A saucepan or frying pan is used for cooking food on the hob. These pans are often made from metal because heat can pass through metal easily. This is because metal is a good conductor of heat. Heat energy moves through the metal pan, through the liquid inside the pan and into the food.

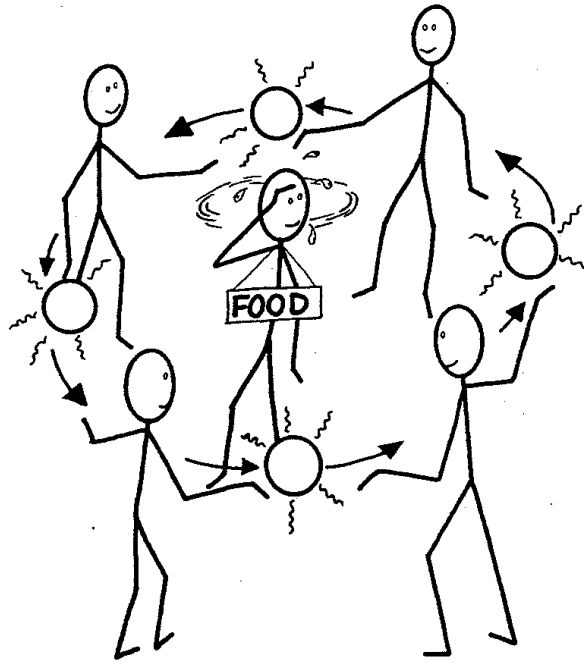
Watching an egg frying shows how the heat energy passes into it – the outside changes from clear to white and from liquid to solid. Gradually the heat travels into the centre of the egg and, if left for long enough the yolk will set too. In the same way a metal cake tin allows heat into the cake mixture, moving from the outside to the inside.



*Conduction: the ball represents the heat travelling through the saucepan and liquid into the food*

## Convection

When food is being cooked in the oven, currents of hot air move around the food, gradually making it hot and cooking it. These are known as convection currents. Some cookers have a fan inside which moves the convection currents evenly throughout the oven. When foods are boiled on a hob, convection currents within the liquid help to cook the food as well!

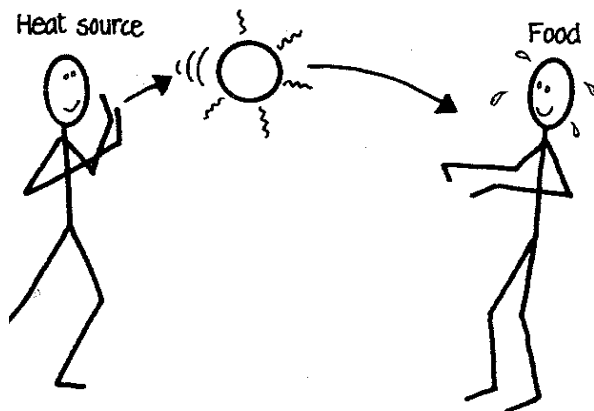


### *Have you heard?*

When bread is toasted, between 10 and 30% of the vitamin B is lost.

## Radiation

Just as the sun can shine down and brown the skin of people, heat rays shine down onto food, browning and cooking it. When food is grilled it needs to be turned over to brown and cook both sides. The heat does not penetrate very far so this method of cooking is used for fairly thin foods like burgers, bread, fish or steak. It is a quick and healthy way to cook food because any fat melts and drips out of the food.



### *And finally ...*

- 1 Name the three main ways heat energy can pass into food.
- 2 Give an example of a food being cooked by each of the methods.
- 3 Explain why most saucepans are made from metal.
- 4 What are convection currents?
- 5 Why is the food we grill usually quite thin?
- 6 Why do you think a jacket potato might be wrapped in foil while it is baking in the oven?

## Heat Transfer