Explain what you mean by the term balanced diet, giving examples where appropriate.

Grading descriptors – Unit 03 Exploring balanced diets (K/506/5038)

Assessment criteria	Pass	Merit	Distinction
1.1 Explain what is meant by a balanced diet	Learners will explain what is meant by a balanced diet	Learners will explain in detail what is meant by a balanced diet	Learners will comprehensively explain what is meant by a balanced diet
1.2 Describe the nutrients that make up a balanced diet	Learners will describe the nutrients that make up a balanced diet	Learners will describe in detail the nutrients that make up a balanced diet	Learners will comprehensively describe the nutrients that make up a balanced diet

A balanced diet means eating the foods that our body needs in the suggested quantities.
Eatwell Guide 5 segments to represent the 5 food groups as follows:
potatoes, bread, rice, pasta and other starchy carbohydrate foods: 38 %
fruit and vegetables: 40 %
dairy and alternatives: 8%
beans, pulses, fish, eggs, meat and other protein: 12 %
oils and spreads: 1%

carbohydrates (potatoes, bread and rice - energy)
vitamins (A, B group, C, D, E, K) (fruit and vegetables - good immune system, good eyesight, healthy skin)
minerals eg calcium (dairy foods – strong teeth and bones) iron (meat, particularly red – keeps the blood cells healthy and helps oxygenate the heart),
protein (meat, fish and pulses – growth and repair).
balanced diet/healthy lifestyle maintain a healthy body weight

Eatwell guide -nutrients that you need, eaten in the correct proportions.
factors impact the amount of food that you should -age, gender, lifestyle and physical activity.
The balance varies during different life stages -toddlers and pre school children need lots of energy, calcium and protein for development.
Teenagers, especially girls, lots of iron due to menstruation.
A person who is inactive (desk job, plays computer games a lot) fewer calories do not need as much energy as an active person (physical job, plays a lot of sport) who would need a much greater calorie intake.

There are 5 nutrients needed for health and well being. Identify 3 of these nutrients and describe their function and sources.

carbohydrates, proteins, fats, vitamins and minerals.
Carbohydrates: energy from starch carbohydrates. two types sugar and starch. Simple carbohydrates release energy quickly (white bread, rice and pasta, potatoes), complex carbohydrates are slow releasing (wholegrain foods, brown rice and pasta, porridge). Also provide fibre.
Protein: amino acids to break down food. animal sources such as meats, milk, fish, and eggs, as well as in plant sources such as soy, beans.
Fat: essential fatty acids as well as energy. maintain the normal structure of cells in the body. two main types: Saturated–limited to 10% of calories, unsaturated - lower blood cholesterol unsaturated fats have a lot of calories, still limit them.
Vitamins: Water-soluble vitamins cannot be stored in our bodies. These include vitamin, B1, vitamin B2, vitamin B3, vitamin B6, vitamin B12, vitamin C. Fat soluble: vitamin A, vitamin D, vitamin E and vitamin K.
Minerals: Essential for building strong bones and teeth, controlling body fluids inside and outside cells, turning the food you eat into energy. Calcium and Iron and the two most important although there are many others.

Carbohydrates: Simple carbohydrates release energy quickly (white bread, rice and pasta, potatoes), complex carbohydrates are slow releasing (wholegrain foods, brown rice and pasta, porridge). Function: provides energy, calcium, iron and B group vitamins. Wholegrain varieties (complex carbohydrates) also provide dietary fibre.
Protein: provides amino acids, Needed for normal growth and maintenance. growth and development during childhood, adolescence, and pregnancy
Fat: maintain the normal structure of cells in the body. carries essential fat-soluble vitamins and is important for their absorption.
Vitamin A immune system. vision and skin **Vitamin B1** Helps to release energy from food. It is also helps our nervous system and heart function normally.
Vitamin B2 release energy from food helps maintain skin. normal nervous system and reduce tiredness.
Vitamin B3 Helps to release energy from food and helps to maintain normal skin. It also helps the nervous system function normally and helps reduce tiredness.
Vitamin B6 make red blood cells, carry oxygen around the body. immune system, regulates hormones reduce tiredness.
Vitamin B12 make red blood cells, carry oxygen around the body, nervous system immune system helps to reduce tiredness.
Vitamin C protect cells formation of collagen - bones, gums, teeth and skin. immune system nervous system
Vitamin D absorb calcium bones strong. muscles function immune system
Vitamin E Helps to protect the cells in our bodies against damage.
Vitamin K clotting of blood and bone structure.
Minerals:
Calcium strong bones and teeth, functioning of nerves and muscles. blood clotting
Iron: make red blood cells, carry oxygen around the body. immune system brain to function

Carbohydrates: bread, rice , potatoes, cereals, porridge, pasta. choose wholegrain varieties longer to digest giving slow releasing energy.
Protein: Found in Meat, fish, eggs, dairy foods, cereal products (such as bread), soya products, nuts and pulses. choose lean cuts of meat trim off any visible fat.
Fat: Fats and oils, meat and meat products, dairy foods, oily fish, nuts, seeds and avocados. Saturated fats animal products such as butter, cheese, whole milk, ice cream, cream, and fatty meats. in some vegetable oils -- coconut, palm, and palm kernel oils. Unsaturated fats vegetable oils eg sunflower and olive oil, soft margarine.
Vitamin A Liver, cheese, eggs, dark green leafy vegetables and orange-coloured fruits and vegetables (e.g. carrot, sweet potato, butternut squash, cantaloupe melon and papaya).
Vitamin B1 Bread, fortified breakfast cereals, nuts and seeds, meat (especially pork), beans and peas.
Vitamin B2 Milk and milk products, eggs, fortified breakfast cereals, offal, some oily fish (e.g. mackerel and sardines), mushrooms and almonds.
Vitamin B3 Meat, poultry, fish and shellfish, wholegrains (e.g. brown rice, wholewheat pasta and quinoa), bread and some nuts and seeds (e.g. peanuts and sesame seeds).
Vitamin B6 Meat, poultry, fish, fortified breakfast cereals, egg yolk, yeast extract, soya beans, sesame seeds, some fruit and vegetables (e.g. banana, avocado and green pepper).
Vitamin B12 Meat, fish, shellfish, milk, cheese, fromage frais, eggs, fortified yeast extract and fortified breakfast cereals.
Vitamin C Fruit (especially citrus fruits, blackcurrants, strawberries, papaya and kiwi), green vegetables, peppers and tomatoes.
Vitamin D Oily fish, eggs, fortified breakfast cereals and fat spreads. In summer, the majority of people will get most of their vitamin D through the action of sunlight on the skin.
Vitamin E Vegetable and seed oils (e.g. olive, rapeseed, sunflower, peanut oils) nuts and seeds (e.g. sunflower seeds and almonds), avocados and olives. **Vitamin K** Green vegetables (including leafy greens, broccoli, green beans and peas) and some oils (e.g. rapeseed, olive and soya oil).
Minerals meat, cereals (including cereal products such as bread), fish, milk and dairy foods, vegetables, fruit (especially dried fruit) and nuts.
Calcium Milk, cheese, yogurt, fromage frais, some green leafy vegetables (such as kale and rocket), calcium-fortified dairy-alternatives, canned fish (where soft bones are eaten) and breads (white, brown and wholegrain).
Iron: Offal, red meat, beans, pulses, nuts and seeds, fish (e.g. canned sardines, cockles and mussels), quinoa, wholemeal bread and dried fruit.

Explain what you understand by the term balanced diet.

Grading descriptors – Unit 03 Exploring balanced diets (K/506/5038)

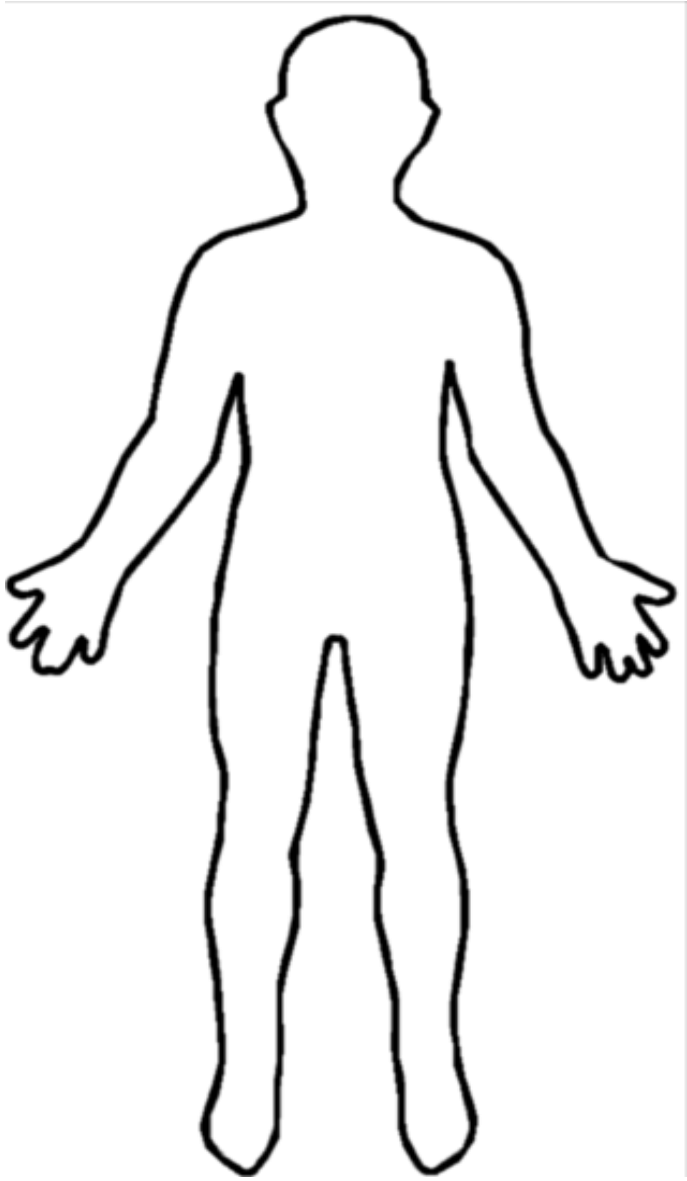
Assessment criteria	Pass	Merit	Distinction
1.1 Explain what is meant by a balanced diet	Learners will explain what is meant by a balanced diet	Learners will explain in detail what is meant by a balanced diet	Learners will comprehensively explain what is meant by a balanced diet
1.2 Describe the nutrients that make up a balanced diet	Learners will describe the nutrients that make up a balanced diet	Learners will describe in detail the nutrients that make up a balanced diet	Learners will comprehensively describe the nutrients that make up a balanced diet

There are 5 nutrients needed for health and wellbeing. Identify these nutrients and describe their functions and food sources.

Nutrient	Function/Why needed	Sources

1.2 Describe the nutrients that make up a balanced diet	Learners will describe the nutrients that make up a balanced diet	Learners will describe in detail the nutrients that make up a balanced diet	Learners will comprehensively describe the nutrients that make up a balanced diet

Label the body outline to show the five main nutrients needed by the body. Explain why we need them and the sources of food that provide them.



Non Nutrient
Water:

Non Nutrient
Fibre:

Non nutrients
Needed to stay alive: fibre (NSP) and water

1.3 Explain nutrient requirements for different groups of people

1.3 Explain nutrient requirements for different groups of people Groups of people: age (babies and toddlers, pre-schoolers, children, teenagers, adults, older) gender, activity level, health conditions (lactose intolerance, nut allergy, coronary heart disease, vegans)	Teach - Part One	This assessment criterion focuses on the learner's ability to explain. It's recommended that learners are taught the full range, with specific focus on the nutritional needs for different groups of people. Learners should be aware of both the limitations of specific diets, as well as positive ways of meal planning to ensure the nutritional status is maintained. Knowledge of the excess and deficiencies over time of nutrients are needed within the range and learners need to be able to apply these to the given scenario or context of the question. For Distinction, students need to comprehensively explain and apply their subject knowledge, and this should include examples and references to named nutrient function, source, deficiencies and excesses.
1.3 Explain nutrient requirements for different groups of people Groups of people: age (babies and toddlers, pre-schoolers, children, teenagers, adults, older) gender, activity level, health conditions (lactose intolerance, nut allergy, coronary heart disease, vegans)	Teach - Part Two	

Assessment criteria	Pass	Merit	Distinction
1.1 Explain what is meant by a balanced diet	Learners will explain what is meant by a balanced diet	Learners will explain in detail what is meant by a balanced diet	Learners will comprehensively explain what is meant by a balanced diet
1.2 Describe the nutrients that make up a balanced diet	Learners will describe the nutrients that make up a balanced diet	Learners will describe in detail the nutrients that make up a balanced diet	Learners will comprehensively describe the nutrients that make up a balanced diet
1.3 Explain nutrient requirements for different groups of people	Learners will explain nutrient requirements for different groups of people	Learners will explain in detail nutrient requirements for different groups of people	Learners will comprehensively explain nutrient requirements for different groups of people
1.4 Explain healthy eating advice	Learners will explain healthy eating advice	Learners will explain healthy eating advice in detail	Learners will comprehensively explain healthy eating advice
1.5 Explain how nutritional information on food labels can inform healthy eating	Learners will explain how nutritional information on food labels can inform healthy eating	Learners will explain how nutritional information on food labels can inform healthy eating showing critical understanding	Learners will explain how nutritional information on food labels can inform healthy eating showing critical judgement

Energy needs change through life

Energy requirements change through life and depend on many factors, such as:

- age;
- gender;
- body size;
- level of activity.

Babies

Breast milk provides all the energy and nutrients a baby needs for growth and maintenance during the first 4 to 6 months of life.

Breast milk provides special proteins, antibodies and white blood cells which help to protect the baby against infection.

It also provides growth factors and hormones, important for the healthy growth and development of the baby.

Weaning

At around 6 months of age, milk no longer fulfils all the baby's need for energy and nutrients.

The baby must be given other foods in addition to breast milk or infant formula. This is called weaning.

Foods used during weaning must be semi-fluid and soft since the baby has no teeth and cannot chew.

Cow's milk should not be given to infants under 1 year of age as the main drink, because it does not provide adequate nutrients for the infant.

Childhood - toddlers

The energy requirements of children increase rapidly because they grow quickly and become more active.

Young children do not have large stomachs to cope with big meals.

Therefore, to achieve the relatively high energy intake for their age, foods should be eaten as part of small and frequent meals.
Milk should be full fat, no low fat products should be given before the age of five.

Childhood

A good supply of protein, calcium, iron, vitamin A and D, as part of a healthy, balanced diet, is important.

Calcium is needed for healthy tooth development, and together with vitamin D, can help develop strong bones.

Healthy weight in childhood

Children should be encouraged to remain a healthy weight with respect to their height.

A healthy family lifestyle can help in the weight management of children.

Dental hygiene

Children should pay attention to dental hygiene and ways to prevent dental caries.

If children choose to eat food and drinks high in sugar occasionally, this should be done at mealtimes and not in between meals.

Adolescence

Adolescence is a period of rapid growth and development and is when puberty occurs.

The demand for energy and most nutrients are relatively high. Boys need more protein and energy than girls for growth.

Adolescence: Iron

After menstruation begins, girls need more iron than boys to replace menstrual losses.

It is recommended that teenage girls and women require 14.8mg of iron each day, while adolescent boys need 11.3mg of iron daily, but this reduces to 8.7mg for men aged 19 or over.

Iron from meat sources, e.g. liver, beef and lamb, is readily absorbed by the human body.

Adulthood

Nutritional requirements do not change much between the ages of 19 to 50, except during pregnancy and lactation.
A poor diet can lead to diseases such as obesity, cardiovascular diseases, cancer and diabetes.

Older adults

Requirements for energy gradually decrease after the age of 50 as activity level falls.
Older adults is the term usually refers to people over the age of 65.
Older adults should have plenty of calcium intake from milk and dairy products, green leafy vegetables, beans, pulses, and products made from flour.

As we age, our skin is less efficient at making vitamin D from sunlight and it is unlikely that the diet alone will provide adequate vitamin D, so it is recommended that people over the age of 65 years take a vitamin D supplement.

Effects of an unbalanced diet

An unbalanced diet includes **too much or too little** of the recommended food groups. This can lead to health problems, such as:

- coronary heart disease
- high blood pressure
- obesity
- tooth decay
- diabetes

Diets can be adopted for **health reasons** such as allergies, intolerances or needing to lose weight. Examples of diets are:

- **Calorie controlled** - food energy is measured in calories. Keeping calorie consumption below the energy your body uses up causes weight loss.

- **Coeliac disease** - an intolerance to **gluten**. Gluten is found in foods containing wheat, eg bread, cakes, and pasta.

- **Diabetes** - is where blood sugar level is higher than normal. Diabetics need to monitor carbohydrate intake.

- **Lactose intolerance** - is an inability to absorb the sugar that naturally occurs in cow's milk.

- **Nut allergy** - means a sensitivity to nuts, causing a reaction which can be severe.

- **Vegetarian** - means not eating meat and fish. Protein must be obtained from dairy products, nuts and pulses

Specific nutrients that the person might be lacking or over consuming and the source of this nutrient. E.g. a vegetarian might be lacking in iron from red meat
Ways to solve the excess or deficiency e.g. the vegetarian could consume more green vegetables such as cabbage or spinach to increase their iron.

Lactose intolerance – lack of calcium

Calcium

Calcium is important for maintaining strong bones and controlling muscle and nerve function. Signs of severely low calcium include fatigue, muscle cramps, abnormal heart rhythms, and a poor appetite. Make sure you're getting enough with at least three servings of milk or yogurt a day, there are lots of other varieties available that are Lactofree or non-animal alternatives eg almond milk. Other good sources of calcium are cheese, calcium-fortified orange juice, and dark, leafy greens.

Diabetes - In Type 2 diabetes there is not enough insulin, Type 1 diabetes develops when the insulin-producing cells in the body have been destroyed and the body is unable to produce any insulin. Manage your food intake, follow a healthy diet, include wholegrain carbohydrates and fibre.

Vitamin B12

B12 deficiency include numbness in the legs, hands, or feet; problems with walking and balance; anaemia; fatigue; weakness; a swollen, inflamed tongue; memory loss; paranoia; and hallucinations.

You can get vitamin B12 from animal sources. Boost your levels of B12 by eating more fish, chicken, milk, and yogurt. If you're vegan, opt for vegan foods fortified with B12, such as non-dairy milk, meat substitutes, and breakfast cereals

Vitamin D

This vitamin is also critical for bone health. Symptoms of a vitamin D deficiency can be vague — fatigue and muscle aches or weakness. Long term, a vitamin D deficiency can lead to softening of the bones. To get enough vitamin D have three servings of fortified milk or yogurt daily eating fatty fish, such as salmon or tuna, twice a week; and spending some time outside in the sunshine every day. For vegans, dairy alternatives should be eaten, in some cases it may be necessary to take a supplement to support the diet.

Vitamin E

Vitamin E is an antioxidant, protecting cells. It promotes eye health and hardening of the arteries by controlling cholesterol levels. The risk of heart disease, stroke, and heart attack can all be linked to deficiency in vitamin E. Foods that contain vitamin E include nuts, seeds, and vegetable oils.

Coronary Heart Disease – too much fat, high cholesterol, high blood pressure

Soluble fibre - found in fruit, vegetables, pulses and oats. It helps to reduce blood cholesterol. Choosing a **healthy diet**, low in **saturated fat** is important in helping to keep your cholesterol low

Heart Disease - Choose options that are lower in fat, salt and sugar. Too much **saturated fat** can increase the amount of cholesterol in the blood, which can increase the risk of developing coronary heart disease.

Unsaturated fats, (for example olive oil, rapeseed oil, almonds, unsalted cashews and avocado) or polyunsaturated fats (including sunflower oil and vegetable oil, walnuts, sunflower seeds and oily fish) are a healthier choice.

Coeliac disease -autoimmune condition where the body's immune system reacts to gluten, a protein found in wheat, barley and rye. The body's reaction to gluten causes damage to the lining of the intestine, the place where food and nutrients are absorbed. A gluten free diet should be followed.

If you have coeliac disease, your immune system reacts to gluten and leads to damage to the lining of your gut. This causes symptoms of coeliac disease, including bloating, diarrhoea, nausea, tiredness and headaches.

Vegetarians – lack of iron from red meat and other protein sources, Vegans – lack of iron from red meat and other protein sources, lack of B12 from fish, chicken and dairy sources.

Iron

Iron helps your body make red blood cells. When iron levels get too low, your body can't effectively carry oxygen. The resulting anaemia can cause fatigue. You might also notice pale skin and dull, thin, sparse hair,. To boost iron levels, eating iron-fortified cereal, beef, oysters, beans (especially white beans, chickpeas, and kidney beans), lentils, and spinach can help.

Vitamin B12

B12 deficiency include numbness in the legs, hands, or feet; problems with walking and balance; anaemia; fatigue; weakness; a swollen, inflamed tongue; memory loss; paranoia; and hallucinations.

You can get vitamin B12 from animal sources. Boost your levels of B12 by eating more fish, chicken, milk, and yogurt. If you're vegan, opt for vegan foods fortified with B12, such as non-dairy milk, meat substitutes, and breakfast cereals

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Alicia is a 14 year old schoolgirl. She often finds she lacks energy and frequently feels tired. She is quite small for her age. She eats very few dairy products and no red meat or fish. Identify the nutrients that may be missing from Alicia's diet.

What impact might a lack of these nutrients have on Alicia's health and wellbeing?

1.3 Explain nutrient requirements for different groups of people	Learners will explain nutrient requirements for different groups of people	Learners will explain in detail nutrient requirements for different groups of people	Learners will comprehensively explain nutrient requirements for different groups of people

Kalem is a 30 year old male. He has recently become a vegan.
Identify the nutrients that are most important to Kalem as he adapts to a vegan diet.

Explain the reasons why these nutrients are important to Kalem.

1.3 Explain nutrient requirements for different groups of people	Learners will explain nutrient requirements for different groups of people	Learners will explain in detail nutrient requirements for different groups of people	Learners will comprehensively explain nutrient requirements for different groups of people

The Government has produced 8 tips that we can use as a guide to help us make healthier choices.

They are:

1) Base your meals on starchy foods

2) Eat lots of fruit and vegetables

3) Eat more fish – including a portion of oily fish each week

4) Cut down on saturated fat and sugar

5) Try to eat less salt – no more than 6g a day for adults

6) Get active and try to be a healthy weight

7) Drink plenty of water

8) Don't skip breakfast

1. Base your meals on starchy foods

Starchy foods, such as bread, pasta, rice and potatoes are an important part of your diet. These should make up a third of your diet.

Most people need to eat more of these types of foods, so try to include them in each of your main meals. This might mean:

- a bowl of wholegrain cereal or toast for breakfast;
- a sandwich or cous cous salad for lunch;
- or pasta with your evening meal, such as spaghetti bolognaise.

2. Eat lots of fruit and vegetables

We should all be eating more fruit and vegetables. Aim to eat at least 5 portions of fruit and vegetables each day.

A portion is roughly what fits in the palm of your hand e.g. an apple, a heaped tablespoon of dried fruit, a dessert bowl full of salad.

Fresh, frozen, canned, dried and juiced all count.

A glass of juice only counts as one portion a day though, no matter how much you have.

Potatoes, which are starchy foods, do not count towards your 5 a day.

3. Eat more fish – including a portion of oily fish each week

Most of us should be eating more fish.

We should aim to have two portions of fish a week, one of which should be oily fish.

Fresh, canned, smoked and frozen types of fish all count.

Salmon, mackerel, trout, sardines, pilchards and fresh tuna are examples of oily fish.

Cod, haddock, plaice, halibut and canned tuna are examples of non oily fish.

4. Cut down on saturated fat and sugar

To stay healthy we need some fat in our diet – but the right type.

There are two main types of fat – saturated and unsaturated. Having too much saturated fat can be bad for health.

Try to eat these foods less often or in small amounts: meat pies, sausages, hard cheese, butter, lard, cakes, and biscuits.

For a healthy choice, use just a small amount of vegetable oil or spread, choose lean meat and go for low fat varieties of milk and dairy foods.

4. Cut down on saturated fat and sugar

Most people in the UK are eating too much sugar.

We should all be eating fewer foods containing added sugar, such as sweets, cakes, biscuits and soft drinks.

Having sugary foods and drinks too often can contribute to tooth decay, especially if you have them between meals.

5. Try to eat less salt – no more than 6g per day for adults

Most people in the UK are consuming too much salt in their diet.

Much of the salt in our diet comes from processed foods such as bread, breakfast cereals, soups, sauces and ready meals.

Use the labels on food packaging to check if a product is low or high in salt. Think about how much salt you are having each day and make sure it is no more than 6g.

6. Get active and try to be a healthy weight

Most of us need to be more physically active each day.

Young people should do at least 30 minutes of physical activity on at least 5 days of the week. How much do you do?

You don't have to do 30 minutes all in one go. Breaking it up, for example, into two lots of 15 minutes, is just as effective.

7. Drink plenty of water

We should drink about 6 to 8 glasses of water, or other fluids, every day.

Drinking helps to replace the fluid that our body loses naturally throughout the day by breathing, sweating and when we go to the toilet.

Try to drink plenty of water, but other drinks such as fruit juice, milk and tea all count towards fluid intake.

Try to drink at regular intervals throughout the day rather than waiting until you feel thirsty.

8. Don't skip breakfast

Breakfast provides us with energy, as well as some important nutrients that we need for good health.

Breakfast helps to increase concentration and alertness, and this may be linked to better achievements and behaviour at school.

If you skip breakfast you are more likely to fill up on snacks that are high in fat and sugar as you get hungry before lunch.

Try to start the day with:

- a bowl of cereal;
- some fruit and yogurt;
- or a slice of toast.

1.4 Explain healthy eating advice	Learners will explain healthy eating advice	Learners will explain healthy eating advice in detail	Learners will comprehensively explain healthy eating advice

Explain how you can advise people to follow an active, healthy lifestyle using current healthy eating advice.

1.4 Explain healthy eating advice	Learners will explain healthy eating advice	Learners will explain healthy eating advice in detail	Learners will comprehensively explain healthy eating advice

What are the key elements required for a balanced diet?

There are 5 nutrients needed for health and wellbeing. Identify these nutrients and describe their functions and food sources.

Nutrient	Function/Why needed	Sources

Babies

Weaning

Toddler

Childhood

Teenager/Adolescents

Adults

Elderly/older adults

Heart Disease-

Coeliac disease -.

Diabetes –

Lactose intolerance-

Vegetarian/Vegan –

1.5 Explain how nutritional information on food labels can inform healthy eating	Learners will explain how nutritional information on food labels can inform healthy eating	Learners will explain how nutritional information on food labels can inform healthy eating showing critical understanding	Learners will explain how nutritional information on food labels can inform healthy eating showing critical judgement

Watch the video clip on food labelling
http://www.bbc.co.uk/education/clips/zw224j6

Information for consumers

The following information must appear by law on food labels:

- the name of the food;
- weight or volume;
- ingredient list;
- allergen information;
- genetically modified (GM) ingredients;
- date mark and storage conditions;
- preparation instructions;
- name and address of manufacturer, packer or seller;
- place of origin;
- lot (or batch) mark;
- nutrition information (from 2016 onwards).

Allergy information

Within the European Union, any of the 14 foods listed on the following slide used in a pre-packed food, need to be mentioned on the food label.

This enables consumers to understand more about the ingredients in pre-packed foods and are helpful for people with food allergies and intolerances who need to avoid certain foods.

Allergy information

The 14 foods are:

- celery;
- cereals containing gluten (such as wheat, barley, rye and oats);
- crustaceans (such as lobster and crab);
- eggs;
- fish;
- lupins;
- cow's milk;
- molluscs (such as mussels and oysters);
- mustard;
- nuts (such as almonds, hazelnuts, walnuts, Brazil nuts, cashews, pecans, pistachios and macadamia nuts);
- peanuts;
- sesame seeds;
- soybeans;
- sulphur dioxide and sulphites (preservatives used in some foods and drinks) at levels above 10mg per kg or per litre.

Nutrition information on the back of pack

The current rules specify the nutrients that can be included. The information has to be presented per 100g/ml, but could also be provided per portion.

Format 1: 'Big 4'	
Energy	(kJ and kcal)
Protein	(g)
Carbohydrate	(g)
Fat	(g)

Format 2: 'Big 4 and Little 4'	
Energy	(kJ and kcal)
Protein	(g)
Carbohydrate	(g)
of which sugars	(g)
Fat	(g)
of which saturates	(g)
Fibre	(g)
Sodium	(g)

Further information can be added to labels such as the amounts of polyunsaturates, monounsaturates, starch, cholesterol, vitamins or minerals.

Front-of-pack nutrition labelling

Most of the major supermarkets and many food manufacturers choose to display nutritional information on the front of pre-packaged food and drinks.

There are two major schemes for front-of-pack labelling in place: traffic light labelling and Guideline Daily Amount (GDA) labels. Some packs may use a combination of the two.

Traffic light labelling

Traffic light labels on the front of pack provide information on high (**red**), medium (**amber**) or low (**green**) amounts of sugars, fat, saturated fat and salt present in the product, expressed per 100g/ml of the food/drink.

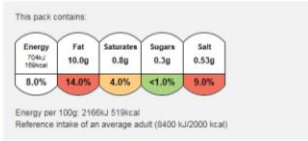
This front-of-pack labelling scheme was developed by the Food Standards Agency to give an at-a-glance indication of whether a food is a healthier choice.

Traffic light labelling

Food Standards Agency

	Sugars	Fat	Saturates	Salt
What is **high** per 100g	Over 15g	Over 20g	Over 5g	Over 1.5g
What is **medium** per 100g	Between 5g and 15g	Between 3g and 20g	Between 1.5g and 5g	Between 0.3g and 1.5g
What is **low** per 100g	5g and below	3g and below	1.5g and below	0.3g and below

Walkers Salt And Vinegar Crisps 32.5G



Guideline Daily Amounts (GDA)

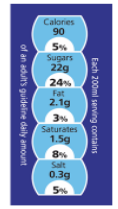
GDA labels include the Guideline Daily Amount for certain nutrients and the percentage (%) GDA provided by 100g or 1 portion.

This can be used to compare products and to choose the one which best suits the consumer, e.g. finding the one with the lowest salt content.

Guideline Daily Amounts (GDA)

GDAs are not targets for individuals to consume, but a guideline or benchmark to help people make dietary choices and balance their daily intake.

Usually GDA values for adult women are used for food labels. This is because these values have been developed for the nutrients often consumed in excess, they represent benchmarks that should not be exceeded on a regular basis; however, people's needs do vary. Therefore, the values for women are typically used as these are slightly lower than those for men.



A combined approach to front-of-pack nutrition labelling

Some packs may use a combination of both the traffic light labelling and GDA labels.

(Department of Health 2011)

In order to make the food that we eat healthier, it is possible to substitute some of the ingredients for healthier alternatives. This could make the dish lower in fat or sugar or even higher in fibre.
We can also be mindful of some simple swaps that could be made - perhaps using yogurt instead of double cream.
There are also other changes that can be made eg cutting visible fat off of meat, choose meats eg mince, with a lower fat content, swapping meat for vegetarian alternatives eg Quorn, having a meat free day each week, choosing wholegrain options eg brown rice or wholemeal pasta.
We could also add healthier accompaniments to our meals eg salad instead of chips, or add additional vegetables to a dish to help to achieve our 5 a day eg adding carrots or celery to a lasagne, spinach to a spaghetti bolognaise.
Choosing healthier cooking methods can help too – try stir frying or grilling foods instead of shallow or deep frying, have a jacket potato or mash instead of chips etc.

You can make many recipes healthier by using lower-fat or no-fat ingredients. These healthy substitutions can help you cut down on saturated fats, *trans* fats and cholesterol, while noticing little, if any, difference in taste.
•Instead of whole milk use skimmed or semi skimmed milk
•Instead of double cream use low-fat yogurt.
• Instead of sour cream, use low-fat unsalted cottage cheese plus low-fat or fat-free yogurt; or just use fat-free sour cream.
•Instead of butter (1 tablespoon), use 1 tablespoon soft margarine (low in saturated fat and 0 grams *trans* fat) or 3/4 tablespoon vegetable oil.
•Instead of one whole egg, use 2 egg whites
•Instead of chocolate use cocoa powder

Breakfast
•swap whole milk for semi-skimmed, 1% fat or even skimmed milk
•swap a sugar-coated breakfast cereal for a wholegrain breakfast cereal such as porridge or shredded wholegrain wheat cereal with no added sugar
•swap a sprinkle of sugar on your breakfast cereal for a topping of fresh or dried fruit, which counts towards one of your 5 A DAY
•swap full-fat greek yoghurt for lower-fat or fat-free greek yoghurt, or natural low-fat yoghurt
Lunch
•swap white breads, bagels and muffins for wholegrain varieties
•swap butter and cheese in your baked potato for reduced-fat spread and reduced salt and sugar baked beans
•swap a tuna melt panini for a tuna salad sandwich on wholemeal bread without mayo
•swap a cheddar cheese filling in your sandwich for reduced-fat hard cheese
Dinner
•swap creamy or cheesy sauces for tomato- or vegetable-based sauces on your pasta, meat or fish dishes
•swap mashed potato made with butter and whole milk for mash with low-fat spread and a lower-fat milk, such as semi-skimmed, 1% fat or skimmed
•choose leaner cuts of meat – for example, swap streaky bacon for back bacon
•swap the frying pan for the grill when cooking meat
Drinks
•swap a coffee made with whole milk to a "skinny" coffee made with semi-skimmed or skimmed milk
•swap a cordial for a cordial with no added sugar
•swap a few of your sugary drinks for a glass of water
•swap a cola or fizzy drink with some 100% fruit juice (with no added sugar) mixed with soda water
•swap hot chocolate made with whole milk and served with whipped cream for a hot chocolate made with skimmed milk and no cream
Snacks
•choose from these 10 surprising 100kcal snacks
•swap a blueberry muffin for a currant bun on its own or with some reduced-fat spread
•swap yoghurt-coated raisins for plain raisins
•swap salted nuts for unsalted nuts
•swap cheese straws for rice cakes with lower-fat cream cheese

Assessment criteria	Pass	Merit	Distinction
1.6 Assess a food diary and make recommendations	Learners will assess a food diary and make recommendations	Learners will assess a food diary and make recommendations showing critical understanding	Learners will assess a food diary and make recommendations showing critical judgement
2.1 Assess a recipe in terms of its contribution to healthy eating	Learners will assess a recipe in terms of its contribution to healthy eating	Learners will assess a recipe in terms of its contribution to healthy eating showing critical understanding	Learners will assess a recipe in terms of its contribution to healthy eating showing critical judgement
2.2 Explain how the recipe could be changed to make the finished dish healthier	Learners will explain how the recipe could be changed to make the finished dish healthier	Learners will explain in detail how the recipe could be changed to make the finished dish healthier	Learners will comprehensively explain how the recipe could be changed to make the finished dish healthier
2.3 Describe other factors that could affect the finished dish	Learners will describe other factors that could affect the finished dish	Learners will describe in detail other factors that could affect the finished dish	Learners will comprehensively describe other factors that could affect the finished dish

Swap sugary drinks for diet or sugar-free options, low-fat milk or water
Swap cheese for reduced fat cheese
Swap butter for lower fat butters and spreads
Swap sugary cereal for plain cereal
Swap whole milk for semi-skimmed; or semi-skimmed to 1% fat or skimmed milk
Swap your salt Swapping to smaller portions
Swapping from packed lunches to school dinners
Choosing healthier snacks healthy snacks

Ways to Decrease Intake of Fat

- Minimize "fast" foods
- Minimize processed foods
- Use better cuts of meats (lean meats)
- Use low fat alternatives
- Lower use of condiments
- Eat lower fat snacks
- Choose foods lower in saturated fat & higher in monounsaturated & polyunsaturated fats

2.3 Describe other factors that could affect the finished dish	Learners will describe other factors that could affect the finished dish	Learners will describe in detail other factors that could affect the finished dish	Learners will comprehensively describe other factors that could affect the finished dish

There are many other factors that might influence our food choices. Using the pictures below, create a brainstorm to show the different factors that might affect our food choices. Can you give examples for each one?

Look at the notes provided. For each factor, explain how and why it may influence or restrict people's food choices.
Add examples to demonstrate how these factors may have an impact on the foods that are chosen or eaten.

Healthy Eating and Factors that Influence Food Choice

Factors influencing food choice

Food choices for a balanced diet depend on many factors, such as:

- individual energy and nutrient needs;
- health concerns;
- cultural or religious practices;
- cost;
- food availability;
- food preferences;
- social considerations;
- environmental considerations;
- advertising and other point of sale information.

Health concerns

Diets which exclude many foods due to a person's health concerns or for medical reasons need to be planned carefully.

For example, people who are lactose intolerant cannot eat some dairy products and so must make sure that they eat other foods which are good sources of calcium, e.g. soft edible bones in fish such as tinned salmon or sardines.

However, they can consume hard cheese, as it is low in lactose, and also yogurt in moderate amounts, because the bacteria in yogurt helps digest the lactose.

Food availability

Most foods are grown in a particular season of the year, e.g. strawberries are harvested in summer. These are called 'seasonal foods'.

Buying foods when they are in season will often ensure the food price is lower.

Technology and the importation of food, however, has allowed food to be available all year round.

Frozen foods such as vegetables are a great alternative to fresh, if they are unavailable.

Social concerns

Human welfare and fair trading, where growers or producers in developing countries are paid a good minimum price to cover their costs, can be a high concern for some people.

Animal welfare can also be a concern for some people. This can affect the choice between caged or free-range hens, or 'dolphin friendly' tuna.

Individual energy and nutrient needs

The amount of energy, carbohydrate, fat, protein, vitamins and minerals needed differs between different age groups and between males and females.

Energy needs also depend on activity levels. Athletes will have much higher energy requirements due to their high level of physical activity.

Cultural or religious practices

Ethical and religious practices, such as avoiding meat, may limit the range of foods people eat.

For example, a strict Vegan will not consume any meat products. They should choose non-meat food sources which are high in protein, iron and vitamin B_{12}.

Cost

Cost of food is a particularly important factor for people with low incomes.

Food prepared food at home is often cheaper than eating out or buying take-aways.

Food preferences

Not everyone likes the same food, but some foods are particularly popular or unpopular.

The taste, texture or appearance of foods can affect people in different ways.

Food advertising

Advertisements encouraging people to choose certain foods often appear on the television, internet, radio, posters, magazines and newspapers.

Environmental concerns

Scientific intervention in the food chain also causes concerns for some people. Genetically modified (GM) ingredients changing a plant, animal or micro-organism's genes or inserting one from another organism. These foods are labeled so people may decide to choose non-genetically modified food products.

People may also choose foods labelled as organic. The word 'organic' has come to have the meaning of foods grown without the use of inorganic fertilisers, or pesticides. Food sold as 'organic' must come from growers, processors and importers who are registered and approved by organic certification bodies, which are shown on the food label.

2.3 Describe other factors that could affect the finished dish	Learners will describe other factors that could affect the finished dish	Learners will describe in detail other factors that could affect the finished dish	Learners will comprehensively describe other factors that could affect the finished dish

Sensory factors also influence our food choices. Would you eat burnt toast? Mouldy bread? Milk that smells funny? Watch the clip. Describe how the sensory characteristics could have an impact on the finished dish. Use some of your photographs of practical work to annotate as examples.

http://www.bbc.co.uk/education/clips/z977cwx

Which senses do we use?

A range of senses are used when eating food.

These senses are:

- sight;
- smell;
- hearing;
- taste;
- touch.

A combination of these senses enables you to evaluate a food.

Sound

The sounds of food being prepared, cooked, served and eaten all help to influence our preferences.





Odour

The nose detects volatile aromas released from food. An odour may be described by association with a particular food, e.g. herby, cheesy, fishy. The intensity can also be recorded.

Odour and taste work together to produce flavour. This is the reason why people with a blocked nose find it difficult to determine the flavours of foods.

Taste

The tongue can detect five basic tastes:

- bitter;
- salt;
- sour;
- sweet;
- umami.

Taste may be described by association with a particular food, e.g. meaty, minty or fruity.

The intensity can also be recorded, e.g. mild or strong Cheddar.

Texture

Texture can be assessed through touch.

When food is placed in the mouth, the surface of the tongue and other sensitive skin reacts to the feel of the surface of the food. The sensation is also known as mouth-feel.

Different sensations are felt as the food is chewed. The resistance to chewing also affects texture, e.g. chewiness, springiness.

The viscosity is also a factor, e.g. runny, thick.

The mouth also detects temperature, which plays an important stimulus, e.g. cold icecream, warm bread, hot soup.

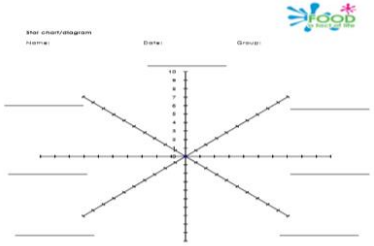
Appearance

The size, shape, colour, temperature and surface texture all play an important part in helping to determine your first reaction to a food.

Often if a food does not look appetising, then you will not eat it.

Appearance is therefore vitally important if you want your food to be eaten and enjoyed.

We can record the results in a number of different ways. Hedonic scale is a very simple way of recording whether someone likes or dislikes a food. Star charts give you more detail and help to identify areas that need to be improved.



Hedonic scale

Name: Date: Group:

Sample	1. Dislike very much	2. Dislike	3. Neither like or dislike	4. Like	5. Like very much	Comments

Assessment criteria	Pass	Merit	Distinction
1.6 Assess a food diary and make recommendations	Learners will assess a food diary and make recommendations	Learners will assess a food diary and make recommendations showing critical understanding	Learners will assess a food diary and make recommendations showing critical judgement

Look at the extract from a food diary below. Annotate the picture to explain the following:
What are the good points about this food diary? Why? How will they contribute to a healthy balanced diet?

What needs to be improved? Why? What would be the consequences if this person ate like this every day?

Explain how this person could improve their diet. What would you recommend? (think about sugar/snack swaps, high fibre alternatives etc)

Day & Date	Time	Food Description	Amount
Monday	8.30 am	White toast, butter & jam Boiled egg Coffee & 2 sugars	2 pieces 1 2 cups
	10.30am	Coffee & 2 sugars KitKat	1 cup 1 whole bar
	12.30am	Cheese & salad sandwich, mayonnaise & butter Apple Orange juice Bag of Maltesers	(2 rounds of white bread) Small carton Whole bag
	3pm	Tea & one sugar Scone, jam and cream Grapes	1 cup 1 scone 5 grapes
	5.30pm	Crisps	3 crisps
	6.30pm	Roast beef, Yorkshire pudding, roast potatoes, boiled peas, boiled carrots & gravy Rhubarb crumble and custard Wine	1 large plate + small seconds One bowl Half a bottle
	8.30pm	Hot chocolate + 2 sugars	1 cup

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What needs to be improved? Why? What would be the consequences if this person ate like this every day?

Explain how this person could improve their diet. What would you recommend? Have all of the food groups been covered? Are they getting enough nutrients?