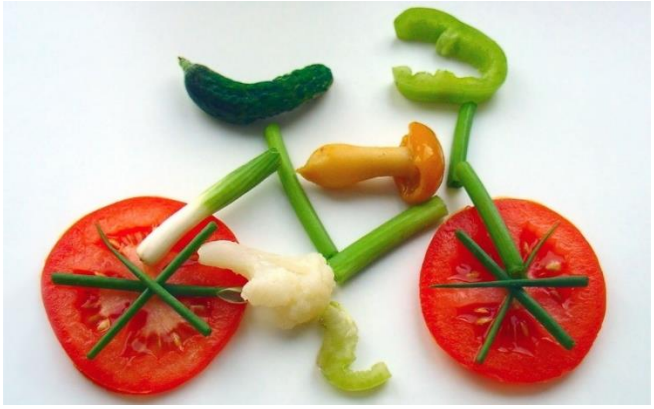
Science

To understand the impact of diet and exercise on human health.



Your task is to plan a meal and an exercise regime that will contribute to a healthy lifestyle.

For your meal, you must consider the different food groups that are needed for a balanced diet. You can plan one course, or if you fancy a challenge, a full menu for a day including breakfast, lunch, dinner and any additional healthy snacks. Use the information on the following pages to make sure you understand which foods fall under which food groups.

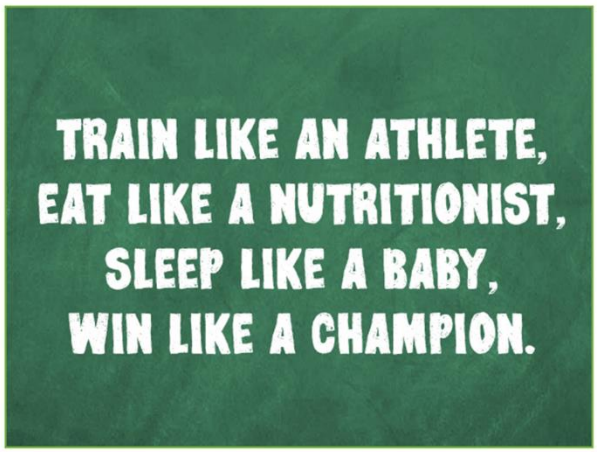
You can use the plate template given if you wish or else present it in your own way.

When planning your exercise, you have two choices. You can choose out of the following:

- Plan an hour of exercise of different activities that combine both aerobic exercises and exercises to strengthen your muscles and bones. Make sure you think about a warm up and cool down activity (just like we would do in your lessons at school)
- Plan your exercise over the week, making sure you include both aerobic exercises and exercises to strengthen your muscles and bones. Maybe you could go for a leisurely walk one day, but then really get your heart rate going on another day!

Use the pages below to help you, or conduct your own research into possible different exercises. You can decide how to present your exercise regime – you could write down your plan, draw and label pictures of the activities or even record your very own Joe Wicks style video!

Although the task this week is to plan your meal and exercise, you may be able to try them out with your family! Why not get someone in your family to join in with your new exercise regime and explain to them the benefits of it?



Eatwell Guide

Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.

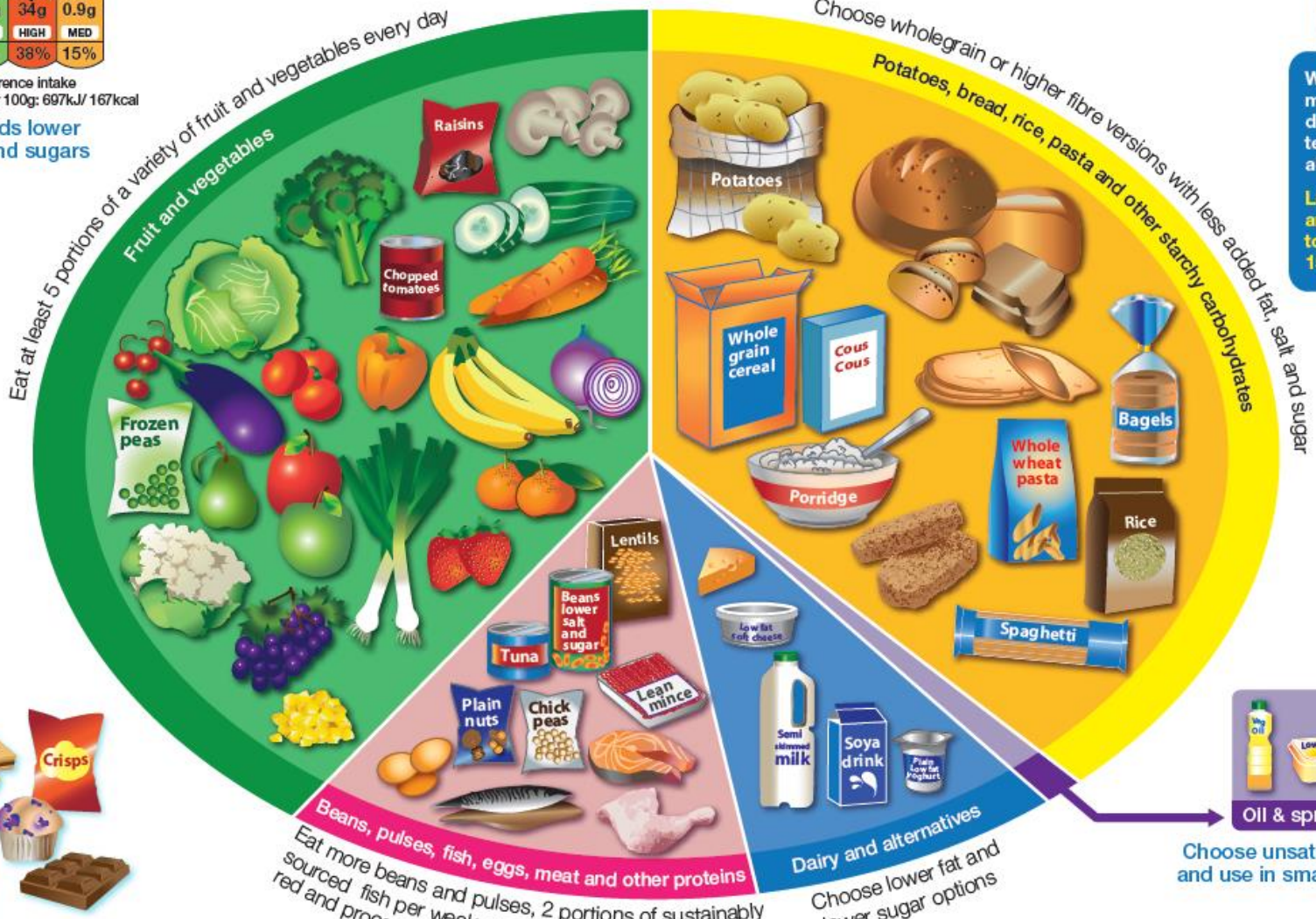
Check the label on packaged foods

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g LOW	1.3g LOW	34g HIGH	0.9g MED
13%	4%	7%	38%	15%

of an adult's reference intake
Typical values (as sold) per 100g: 697kJ/ 167kcal

Choose foods lower in fat, salt and sugars



Eat more beans and pulses, 2 portions of sustainably sourced fish per week, one of which is oily. Eat less red and processed meat

Choose lower fat and lower sugar options

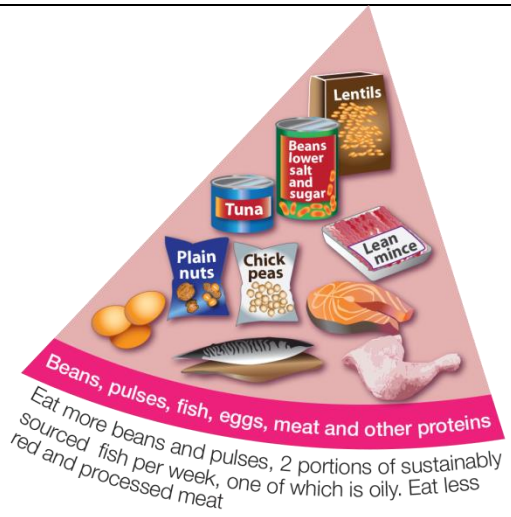
Choose unsaturated oils and use in small amounts

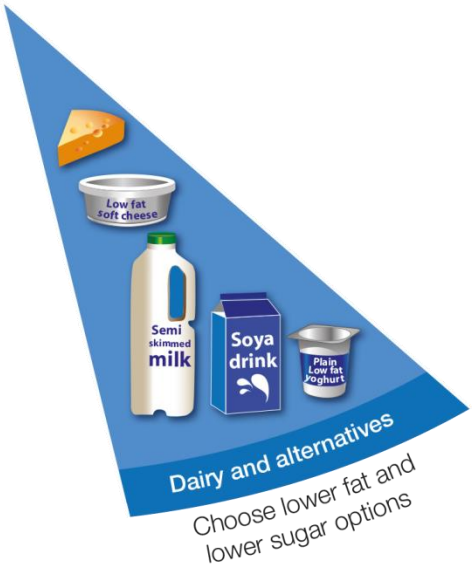
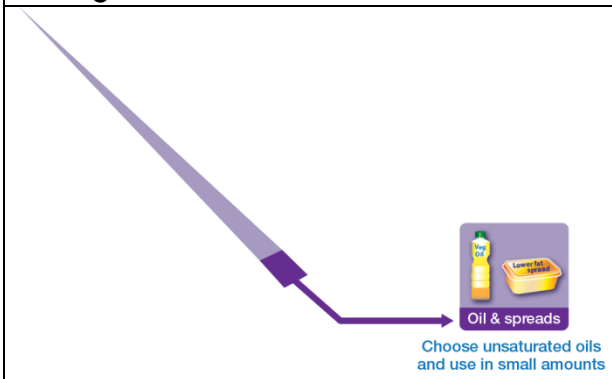
Eat less often and in small amounts

Water, lower fat milk, sugar-free drinks including tea and coffee all count.

Limit fruit juice and/or smoothies to a total of 150ml a day.

Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS

Food group	Foods included in this group
 Fruit and vegetables	Apple, Baked beans, Banana, Broccoli, Cabbage, Carrots, Cauliflower, Cucumber, Fruit juice, Fruit smoothie, Kiwi, Lettuce, Melon, Oranges, Pears, Peas, Pineapple, Plums, Raisins, Strawberries, Sweetcorn Fresh, frozen, dried, canned and juiced all count.
 Potatoes, bread, rice, pasta and other starchy carbohydrates	Bread: soda bread, rye bread, pitta, flour tortilla, baguettes, chapatti, bagels Rice, potatoes, breakfast cereal, oats, pasta, noodles, maize, cornmeal, couscous, bulgar, polenta, millet, spelt, wheat, pearl barley, yams, plantains.
 Beans, pulses, fish, eggs, meat and other proteins	Meat, poultry and game including: lamb, beef, pork, chicken, bacon, sausages, burgers White fish (fresh frozen or canned) including: haddock, plaice, pollock, coley, cod, canned tuna Oily fish (fresh frozen or canned) including: prawns, mussels, crab, squid oysters Nuts, eggs, beans and other pulses including: lentils, chickpeas, baked beans, kidney beans, butter beans Vegetarian meat alternatives e.g. tofu, micoprotein

 Dairy and alternatives	Milk, cheese, yogurt, fromage frais, quark, cream cheese. This includes non-diary alternatives to these foods.
 Oils and spreads	Vegetable oil, rapeseed oil, olive oil, sunflower oil. Soft spreads made from unsaturated oils.

A Balanced Diet

The human body needs food for energy, to keep warm and for growth and repair.

Food = fuel – it gives you energy to move and think. It keeps your body parts working and helps you to grow and get stronger.

Proteins – help our bodies to grow and repair themselves.

Carbohydrates – give us energy.

Vitamins and minerals – good for skin, bones, teeth and blood.

Fats – provide energy and help build our bodies.

Physical activity guidelines for children and young people

www.nhs.uk/live-well/exercise

How much physical activity should children and young people aged 5 to 18 do to keep healthy?

Children and young people need to do 2 types of physical activity each week:

- aerobic exercise
- exercises to strengthen their muscles and bones

Children and young people aged 5 to 18 should:

- aim for an average of at least 60 minutes of moderate intensity physical activity a day across the week
- take part in a variety of types and intensities of physical activity across the week to develop movement skills, muscles and bones
- reduce the time spent sitting or lying down and break up long periods of not moving with some activity. Aim to spread activity throughout the day. All activities should make you breathe faster and feel warmer

What counts as moderate activity?

Moderate intensity activities will raise your heart rate, and make you breathe faster and feel warmer.

One way to tell if you're working at a moderate intensity level is if you can still talk, but not sing.

Examples of moderate intensity activities which count as aerobic exercise:

- walking
- riding a scooter
- skateboarding
- rollerblading
- walking the dog
- cycling on level ground or ground with few hills

What activities strengthen muscles and bones?

Examples for children include:

- walking
- running
- games such as tug of war
- skipping with a rope
- gymnastics
- sit-ups, press-ups and other similar exercises
- basketball
- dance
- football
- rugby
- tennis
- martial arts

Lots of good reasons to get moving!

Research shows that physical activity can help school aged kids in lots of ways.

Improves behaviour, self-confidence and social skills

Improves attention levels and performance at school

Develops co-ordination

Strengthens muscles and bones

Improves health and fitness

Maintains healthy weight

Helps them sleep better

Improves mood and makes them feel good

Look at the table below to see how many calories you would burn with just 20 minutes of that exercise:

Activity	**Number of Calories you would burn**
Leisurely Walk	59
Dancing	105
Aerobics	140
Skipping	100
Climbing Stairs	151