Section Two — Knowledge Organiser

Learning this Knowledge Organiser on diet and health will help you reach your recommended daily intake for revision...

Healthy Eating Guidelines

The Eatwell Guide recommends:

- 5 portions of fruit & veg — making up 1/3 of daily food intake.
- Using unsaturated oils and spreads, & not often.
- Protein: lean cuts & unprocessed meat best, plus 2 portions of fish per week (1 oily).
- Having some dairy or alternatives & trying lower fat options.
- 1/3 of daily food intake being starchy carbs. Go for higher fibre / wholegrain options.
- 6-8 glasses of fluids a day (but no more than 1 being fruit juice).

Reference Intakes (RIs) = guideline amounts of energy and nutrients required per day. See p.12.

Nutritional Needs of Different Age Groups

1. Toddlers, children & teenagers are growing, so need lots of energy — protein, carbohydrates etc.
   - Young children need small & frequent meals, lots of calcium.
   - Stress during teenage years may affect eating habits.
2. In early / middle adulthood the body stops growing & nutritional needs don't vary much. Should focus on maintaining a balanced & healthy diet.
3. In late adulthood muscle decreases & exercising is harder — diet may change. Taste & smell changing can affect the enjoyment of food.

Other factors affect nutritional needs:

- People who are heavier / larger need more daily kcal.
- Iron lost during menstruation = higher iron requirements.
- Bone density can be lost after the menopause — important to get lots of calcium and vitamin D.
- Towards the end of pregnancy, the body needs 200 more calories per day to support the baby's growth.

Diet-Related Health Problems

	Example of cause	Health problems
Cardiovascular disease	Eating lots of saturated fats	Blood clots, strokes & heart attacks
Anaemia	Not enough iron	Tiredness, headaches
Type 2 diabetes	Being overweight or obese	Kidney failure, poor eyesight (even blindness)
Rickets	Not enough vitamin D or calcium	Bone pain. Soft bones may lead to bowed legs
Osteoporosis	Loss of bone density in old age	Weak & brittle bones break more easily
Obesity	Eating lots of sugary & fatty foods	Coronary heart disease, strokes, type 2 diabetes

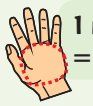
Body Mass Index (BMI) = indicator used to check if someone is obese.

Dental caries = caused by plaque build up, often due to eating too many sugary foods / not brushing teeth.

Planning Meals

Cost: healthier foods can cost more. Buying in bulk is normally cheaper.

Portion size: prepare the right amount, e.g.



1 meat portion = size of palm

1 veg portion = size of fist

Use scoops, dividers & cutters to portion meals

Dietary requirements:

- Lactose intolerance (no dairy)
- Nut allergies
- Coeliac disease (no gluten)
- Vegetarians don't eat meat
- Vegans don't eat any animal products

Health problems: e.g. high iron for anaemia, no added sugar for diabetes.

Energy Needs

Basal Metabolic Rate (BMR) is the amount of energy needed for basic life processes (e.g. breathing). It's affected by many factors, e.g. age, sex, weight, exercise.

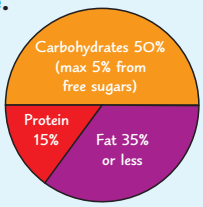
BMR also changes throughout life, e.g. it decreases as you age.

Physical Activity Level (PAL) measures how active you are. A higher PAL means you are more active.

Daily energy requirement (kcal) = BMR × PAL

To maintain a healthy weight, energy intake must be balanced:

Energy in > energy out = weight gain
Energy in < energy out = weight loss



Recommended ratio for energy sources.

Nutritional Analysis

1. Macronutrients have different energy values per 1 g.

   Multiply these by the mass of each nutrient to find the total energy value of an ingredient, recipe or even a diet.
2. Reference tables / websites let you calculate the nutritional value of ingredients or meals.
3. Modifying a recipe can make it more nutritious, e.g. reducing sugar, salt & saturated fats, increasing fibre.