

A balanced diet - literacy task

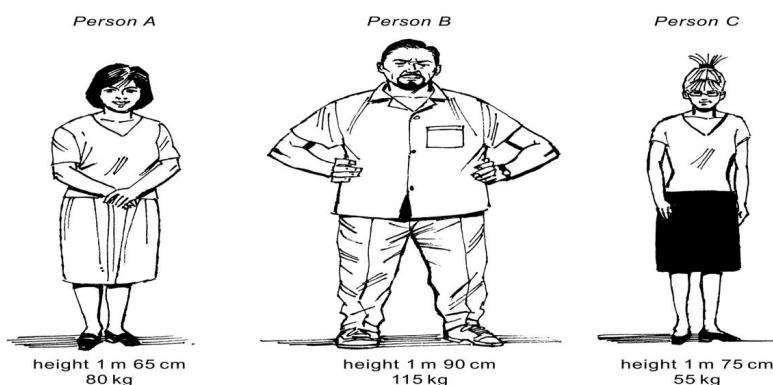
A balanced diet means an intake of all nutrients in their correct amounts.

Evaluating slimming plans

Your body mass index (BMI) is a measure of your mass against your height.

$$\text{Body mass index} = \frac{\text{mass (kg)}}{[\text{height (m)}]^2}$$

① Work out these three people's BMI.



Then use this table to identify each person's weight category.

BMI	Weight category
Less than 15	Seriously undernourished
15–19	Underweight
20–25	Acceptable
26–30	Overweight
31–35	Obese
35+	Grossly obese

- ② You need to think about dieting if your BMI is above what number?
- ③ What might be the reasons for somebody being overweight?
- ④ Should you diet to lose weight or should you diet to lose fat? Explain the difference.

⑤ In groups, study the three types of diet below. For each diet identify:

- a) positives
- b) negatives
- c) interesting things.

Weight Watchers

- Uses a points-based system.
- Each food is given points based on the amount of fat, fibre and energy it contains.
- Each person is set a points target for the day.
- You can eat anything as long as you do not go over the target.
- You can meet once a week with other 'weight watchers' to measure and discuss progress.

$$\text{Points} = \left(\frac{\text{energy in calories}}{50} \right) + \left(\frac{\text{fat in grams}}{12} \right) - \left(\frac{\text{fibre in grams}}{5} \right)$$

For example:

- 1 egg = 1 point
- 1 tablespoon of oil = 4 points
- 1 can of tomato soup = 2.5 points.

Slim-Fast Diet

- Slim-Fast is a meal-replacement diet.
- You can eat as often as six times a day to avoid highs and lows.
- You take two Slim-Fast shakes for breakfast and for lunch.
- You have a normal dinner.
- Each Slim-Fast meal replacement is around 240 calories and with the meal you should not go over 1200 calories.
- Slim-Fast shakes contain added vitamins and minerals, essential fatty acids and proteins.

Atkins Diet

1st stage

- You only eat proteins (meat, fish, poultry, eggs) and fats (oils, butter, etc.).
- You are only allowed 20 g of carbohydrate each day.
- You don't eat any fruit, vegetables or bread. This tricks your body into thinking it is starving and your body uses up its glycogen store.
- Your body loses a lot of water at first.
- If your body is starving it might begin to break down muscle tissue
- It might also damage your kidneys.

Second stage

(after a couple of weeks)

- You start to eat more carbohydrate until you stop losing weight.
- This gives you your maximum carbohydrate limit.
- You must stay under that limit to carry on losing weight.

Food	Kilocalories	Fat	Fibre	Points
Milk (100 ml)	65	3.8	0	
Bread (100 g)	230	1.7	4	
Chips (100 g)	250	11	2	

Metabolism is the speed at which we use energy in our body. People with a high metabolism are usually fitter, healthier and in better shape than people with a low metabolism. The more you exercise and the more muscle you have, the higher your metabolism will be. The higher your metabolism, the quicker you will lose weight.

If you skip meals or starve yourself your metabolism will slow down in order to try to keep your energy stores from getting too low.

⑥ Which of the diets above will slow down your metabolism? Explain your answer.

⑦ Do any of the diets above encourage the use of exercise?

⑧ Why would it be better to exercise as well as diet?

- ⑨ Why does obesity cause health problems like:
- a) high blood pressure
 - b) heart attacks
 - c) arthritis (swollen joints)? (Total 3 marks)
- ⑩ Which of the diets above would be best for Person B? Explain your answer.
- ⑪ Design a dieting programme for Person A.