S2 Home Economics Practice Paper 1 | Food energy, meal costs, textiles, laundry care, home energy and health indicators

Junior Secondary Home Economics

S2 Home Economics practice paper with answers: food energy and nutrition, meal planning costs, textiles, fabric use, laundry care, appliance energy and health indicators.

1. Food energy and nutrition (18 marks)

Use 4 kcal/g for protein, 4 kcal/g for carbohydrate and 9 kcal/g for fat.

#	Question
1	(a) A breakfast contains 10 g of protein, 45 g of carbohydrate and 8 g of fat. Find its total energy in kcal.
2	(b) If the daily requirement is 2000 kcal, find the percentage of the daily energy supplied by this breakfast (1 decimal place).
3	(c) If an extra 200 kcal is eaten daily with no change in activity, and 7700 kcal equals 1 kg of fat, find the theoretical weight gain after 30 days in kg (2 decimal places).
4	(d) Compare 250 ml of whole milk (66 kcal per 100 ml) with 40 g of cereal (380 kcal per 100 g). Find the difference in energy and state which has more energy.

2. Meal planning and food cost (16 marks)

Show working throughout; give money in dollars.

#	Question
5	(a) A family of four budgets 32 dollars per person per meal, two meals a day. Find the weekly (7 day) food budget.
6	(b) The actual spending that week was 1650 dollars. Find the percentage saved against the budget (1 decimal place).
7	(c) Chicken wings cost 68 dollars per kg and a 10 per cent discount applies to 1.5 kg. Find the amount paid.
8	(d) The 1.5 kg of wings makes four portions of 3 wings each, and each wing is about 25 g. Find the mass left in grams.

3. Textile fibres and fabric use (16 marks)

Give areas to 2 decimal places and whole numbers of garments.

#	Question
9	(a) State the fibre class of cotton, wool and polyester (natural plant fibre, natural animal fibre, man-made synthetic fibre).
10	(b) A piece of fabric measures 1.2 m by 0.8 m. Find its area in m^2.
11	(c) One garment needs 0.75 m^2 of fabric. Find the greatest number of whole garments that can be cut and the area left over.

#	Question
12	(d) The fabric costs 45 dollars per square metre. Find the cost of this piece.

4. Clothing care and washing labels (16 marks)

Energy is in kWh and electricity costs 1.2 dollars per unit.

#	Question
13	(a) Explain the meaning of a washtub marked 40 and an iron marked with two dots on a care label.
14	(b) A washing machine uses 0.35 kWh per load and runs 4 times a week. Find the weekly energy use and electricity cost.
15	(c) A woollen sweater is labelled hand wash only at 30 C. What happens if it is machine washed at 60 C?
16	(d) A tumble dryer uses 2.5 kWh per load and runs 4 times a week. Find its weekly electricity cost and the extra cost compared with air drying.

5. Home appliances and energy (18 marks)

Power is in W, energy in kWh, and electricity costs 1.2 dollars per unit.

#	Question
17	(a) A 1500 W kettle boils water for 4 minutes. Find the energy used in kWh.
18	(b) The kettle is used 90 times a month. Find the monthly energy use and cost.
19	(c) A 60 W filament lamp and a 12 W LED lamp each run 5 hours a day. Find the energy saved each day in kWh.
20	(d) Eight lamps in a flat are all replaced by that LED lamp. Find the energy and money saved in 365 days.

6. Personal hygiene and health indicators (16 marks)

Give the body mass index and water intake to 1 decimal place.

#	Question
21	(a) A student is 1.6 m tall and weighs 51.2 kg. Find the body mass index to 1 decimal place.
22	(b) Under the Asian adult standard, which weight category does that value fall into?
23	(c) Daily water intake is advised at 35 ml per kg of body mass. Find the intake in ml and the number of 250 ml cups to 1 decimal place.
24	(d) The student exercises 5 days a week for 30 minutes a day. Find the weekly total and decide whether the 150 minute weekly target is met.