1. John likes apples but his sister, Ruby, only likes kiwi fruit. So when their dad does the shopping he has to work out how many to buy. He reckons that Ruby would need 2 kiwi fruits and John would need 1 apple each day.

a) How many of each fruit would he need to buy for 5 days in school?

b) If he buys a saver bag of 8 apples, then how many kiwi fruits does he need to provide for the same number of days?

c) If he buys a saver bag of 12 kiwi fruits, then how many apples will he need to buy for John for the same number of days?

2. Jack and Amy’s mum decided to replace their Saturday sweet treat with fruit. Jack chose strawberries and Amy chose satsumas. Mum decided that for every satsuma that Amy had, Jack could have 3 strawberries.

a) How many strawberries does Jack get if Amy has 4 satsumas?

b) How many strawberries does Jack get if Amy has 7 satsumas?

c) How many satsumas does Amy get if Jack has 15 strawberries?

3. Susan likes pears and her brother Lee likes plums. Their mum decided that for every 2 pears that Susan had Lee could have 5 plums.

a) How many plums does Lee get if Amy has 4 pears?

b) How many plums does Lee get if Amy has 10 pears?

c) How many pears does Amy get if Lee has 20 plums?

4. A lunchbox has a packet of crisps that weighs 25 g and contains 8 g of fat per 100 g of crisps. How much fat is there in 1 bag of the crisps?

a) 2 g

b) 8 g

c) 25 g

d) 32 g

e) 100 g

5. Wheetos crisps are sold in 30 g bags and contain 6 g of fat per 100 g of crisp. Quipo crisps are sold in 20 g bags and contain 7.5 g of fat per 100 g. Which bag of crisps contains the most fat?

6. Most crisps contain about 80 g of carbohydrate per 100 g of crisp. Bread has about 40 g of carbohydrate in every 100 g. A slice of bread weighs about 50 g, so what amount of crisps contains the same amount of carbohydrate?

a) 8 g

b) 20 g

c) 25 g

d) 40 g

e) 100 g

7. A 125 g pot of fruit yoghurt has the following food label:

|  |  |
| --- | --- |
| Energy | 500 kJ |
| Protein | 5 g |
| Carbohydrate | 25 g |
| Fat | 1 g |
| Vitamin C | 1.25 mg |
| Calcium | 200 mg |

a) How much of each food type would there be in a 250g pot?

b) How much of each food type would there be in a 100g pot?

8. Get pairs of students to use food labels to compare amounts of carbohydrate or fat or protein. When you are sure they have some idea of proportionality ask them to prepare some questions for their peers. Get them to judge which are the best questions to demonstrate that they can investigate data and use proportional reasoning.