Market researchers use **questionnaires** to assess people’s opinions on a whole range of things.

If you were thinking of opening a new hair and beauty salon, you would want to know what your clients wanted – including how they felt about the use of chemicals.

There are lots of ways of asking questions.

Some need a **number** for their answer, some need **ticks**, some ask for your **opinion**.

Cut out the 14 question cards and the 14 response cards.

**Match them up in pairs.**
Tick the statements you agree with:

1. My hair needs washing daily.
2. It is vital to eat at least 5 portions of fruit and vegetables each day.
3. Regular exercise is essential.
4. It is important to me to sleep for at least 7 hours each night.

In order, would you choose a hairstyle, a manicure or a makeover as a treat?

1. Hairstyle
2. Manicure
3. Makeover

What is your favourite make of shampoo?

- Foundation
- Lip gloss
- Eye liner
- Eye shadow

Would you ever consider cosmetic surgery?

- Never
- Once a week or less
- More than once a week

Please enter your email address below:

_________

How is your height?

- 0 to 2
- 3 to 5
- 6 to 10
- 11 to 15
- More than 15

How much do you spend on hair and beauty in a typical month?

- £0
- £3
- £6
- £9
- £12
- £15

Mark a cross on the line above to show how much you spend.

- More than £15 a week? About how much do you spend?

How often do you use the following products?

- Nail varnish
- Hair conditioner
- Hair accessories
- Deodorant
- Perfume or body spray

What time do you usually get up in the morning?

- Never
- 0 to 2
- 3 to 5
- 6 to 10
- 11 to 15
- More than 11

How much do you spend on hair and beauty in a typical month?

- £0
- £3
- £6
- £9
- £12
- £15

What is your favourite make of shampoo?

- Foundation
- Lip gloss
- Eye liner
- Eye shadow

Would you ever consider cosmetic surgery?

- Never
- Once a week or less
- More than once a week

Please enter your email address below:

_________

How is your height?

- 0 to 2
- 3 to 5
- 6 to 10
- 11 to 15
- More than 15

What is your age?

- 1
- 2
- 3

Which of these have you purchased in the last three months?

- Foundation
- Lip gloss
- Eye liner
- Eye shadow

Do you know what effect bleach has on the condition of your hair?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely

Yes / No
Give your reasons.

- My hair needs washing daily.
- It is vital to eat at least 5 portions of fruit and vegetables each day.
- Regular exercise is essential.
- It is important to me to sleep for at least 7 hours each night.
Gather together the responses to the **questionnaire** that your group has collected.

Cut out the fourteen **Q & As** and place them in the appropriate box.

Choose one of the Q & As that interests you.

Decide how to analyse the data.

Complete the analysis.

Find a suitable way to represent the data.

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**What is your age?**

- 34 years

**Estimate how many times you went to the hairdresser in the last year.**

- 3 to 5 times

**How often do you use the following products?**

- Foundation: Never
- Lip gloss: More than once a week
- Eye liner: Once a week or less
- Eye shadow: More than once a week
Hair and beauty What do people think? questionnaire

1. How often do you use the following products?
   - Foundation
   - Lip gloss
   - Eye liner
   - Eye shadow

2. In order, would you choose a hairstyle, a manicure or a makeover as a treat?
   1
   2
   3

3. Which of these have you purchased in the last three months?
   - Nail varnish
   - Hair conditioner
   - Hair accessories
   - Deodorant
   - Perfume or body spray

4. Would you ever consider cosmetic surgery?
   Yes / No
   Give your reasons.

5. How much do you spend on hair and beauty in a typical month?
   £0 £3 £6 £9 £12 £15
   Mark a cross on the line above to show how much you spend.
   More than £15 a week? About how much do you spend?
   £

6. When you buy a beauty or health product, how likely are you to check which chemicals it contains?
   Very unlikely
   Very likely
   Circle a number

7. What is your age?
   ___________ years

8. Do you know what effect bleach has on the condition of your hair?
   Yes / No

9. Tick the statements you agree with:
   - My hair needs washing daily.
   - It is vital to eat at least 5 portions of fruit and vegetables each day.
   - Regular exercise is essential.
   - It is important to me to sleep for at least 7 hours each night.

10. What is your favourite make of shampoo?
    
11. What is your height?
    ___________ cm

12. Estimate how many times you went to the hairdresser in the last year.
    0 to 2
    3 to 5
    6 to 10
    11 to 15
    More than 15

13. What time do you usually get up in the morning?
    : 

14. Please enter your email address below:
    ___________ @
Hair and beauty professionals use a wide range of chemicals in their treatments. For example, minerals, bleaches and dyes are used to affect hair colour. Soaps, oils and emulsifiers are used to cleanse the skin. Chlorine or bromine is used to keep the water clean in spas and hot tubs. Their training includes understanding the reactions they might encounter among some clients as the result of the chemicals which some treatments contain.

### Activity 1: Questionnaire questions

This topic is designed to help pupils develop their understanding of the data handling cycle. In Questionnaire questions, they consider how questions vary and the importance of providing a suitable format for the answers. Ideally, photocopy the Questionnaire questions cut out sheet onto card and cut up before the lesson. The pupils match each question card to a suitable response card. They will find that some answers could be used for several different questions but there is only one way to complete the task so that every card is paired.

They then take away copies of the What do people think? questionnaire and bring them back to the next lesson completed by family, friends and neighbours. Two questionnaires from each pupil is likely to provide sufficient data for the whole class to analyse in What do people think? Organise the pupils in groups of three or four for this activity. They cut out the Q&As from the completed questionnaires – the questions are numbered but it will be easier to sort if the questionnaires have been photocopied in colour. Each group puts their cut out Q&As in suitably labelled boxes at the front of the class. Once the Q&As are all sorted, each group takes a box, discusses how to analyse the data, completes the analysis and chooses how the data is best represented. You will want to review some different ways of representing data before asking the pupils to make their choice.

### Activity 2: What do people think?

If appropriate, more explicit work on the varying nature of the data sets will provide a challenge. Data is often categorised as qualitative (non-numeric data) or quantitative (numeric data). Quantitative data is often further subdivided into nominal, ordinal, interval and ratio scales. Quantitative data may be continuous or discrete. This is a highly complex area with some genuinely problematic issues. For example, time and height are both continuous variables, yet they can only be recorded as discrete values! A search on the internet will reveal many useful (and sometimes contradictory) articles which can provide starting points for valuable discussions on the categorisation of data.

### The Mathematics

This topic provides the opportunity to consider many aspects of the data handling cycle, from consideration of questions suitable for a questionnaire, through the collection and analysis of data to its representation in various forms.