



You are the Investigator! KS2

We have heard rumours about some strange and interesting trends in your class. You have been asked to collect data from your class, analyse these and report back about anything that you find out.

You have decided to collect data by asking your class to complete the 2015/16 *CensusAtSchool* questionnaire on paper or online. Your teacher will help you with this. (See page 4 for new words.)

Input data

Complete the 2015/16 *CensusAtSchool* questionnaire.

Title

Decide on something you would like to find out about your class based on the questions in this questionnaire. There are some past ideas on page 4 can you think of some for the new questionnaire?

1. Think of an interesting title.
2. Write down your question.
3. Make the page bright, neat and colourful.

Example for 2013/14:

Movie Time, and Time Again



Do boys watch their favourite movie more often than girls?

The Data

You will need to collate the data into groups. Tally charts are really good for this.

1. Draw a tally chart to collect your data.
2. Fill in the tally chart.

Example Movie Time, and Time Again

Number of times pupils from Class 6 watched their favourite movie.

Girls	Tally	Frequency
Less than 5 times	 	15
Between 5 and 10 times	 	5
More than 10 times		3
Total number of times for girls		23

Boys	Tally	Frequency
Less than 5 times	 	10
Between 5 and 10 times	 	9
More than 10 times		2
Total number of times for boys		21

Note: this data is made up.



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Charts and Graphs

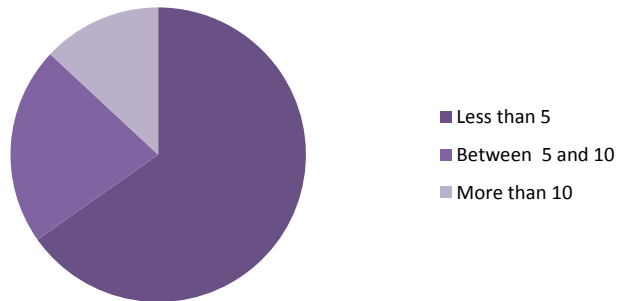
Plot a chart or graph to display the results.

You could choose:

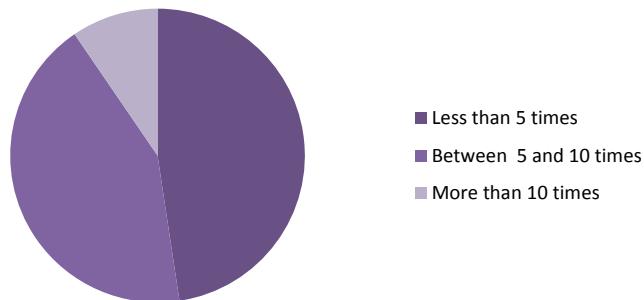
- A pie chart: This splits the total number of values (total frequency) into slices of the pie (sectors) for each group.
- A simple bar chart: This shows the differences between the frequencies for different categories and must have gaps between the bars.
- A comparison bar chart: This is used to compare the frequencies for different groups e.g. girls and boys.
- A pictograph: This shows difference like a bar chart but pictures are used in the bars. A key is needed to show how many values the picture represents.

Example: Movie Time, and Time Again

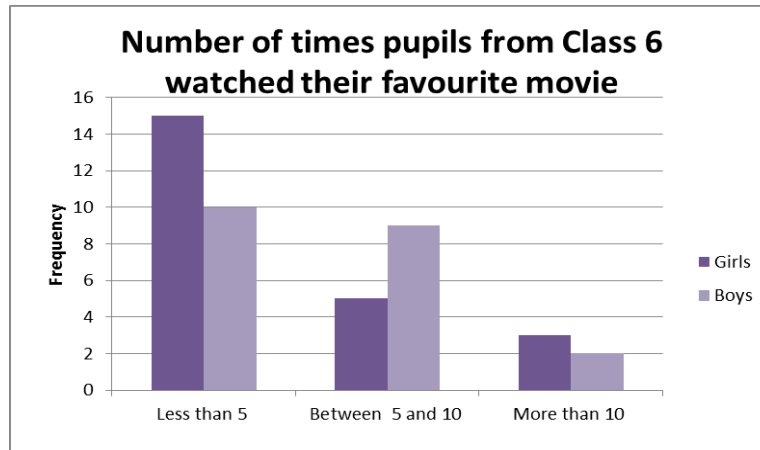
Number of times girls from Class 6 watched their favourite movie



Number of times boys from Class 6 watched their favourite movie



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Remember: this data is made up.

The Conclusion - What have you found out?

1. Write a sentence about what your graph shows.
2. Do you think you chose the right chart/graph to display your data?
3. What is the answer to your question?
4. Is there anything else you would like to find out about this question?

Example: Movie Time, and Time Again

The pie charts show the proportion of boys and girls who watched their favourite movie less than 5 times, between 5 and 10 times and more than 10 times. It is clear to see that a bigger proportion of boys than girls have watched their favourite movie more than 5 times.

The comparison bar chart for the number of times boys and girls from Class 6 watched their favourite movie shows that more girls than boys watched it less than 5 times.

Remember: the data used here is just an example.



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Ideas for investigations.

Travel

- What is the most popular way that pupils in your class travel to school?
- How many of the pupils in your class travel to and from school the same way?
- What is the furthest distance travelled to school by a pupil in your class?

Bikes

- How many of your class ride or own a bike?
- Do more girls than boys ride or own a bike?
- Do more boys than girls wear a helmet when they ride a bike?

General

- What is the most popular super power that your class mates would like to have?
- Do boys wish to have the same super power as girls?
- Which of the following did girls and boys prefer to be?
Rich Famous Happy Healthy

New words

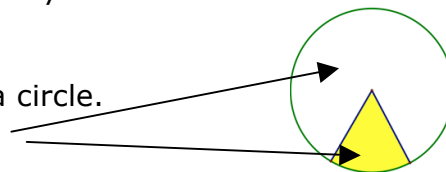
Collate - to gather up and put in some order.

Frequency - the number of times an item appears or something happens.

Category - a class or group with a particular property.
E.g. for type of pet, the categories could be: cat; dog; rabbit; mouse ...

Tally - a record of your count of items or values.

Sector - part of a circle.
Sectors



Proportion - the share you have of the whole.
Eg the proportion of girls who watched their favourite movie less than 5 times is $15/23$.

