Gathering and representing data





Objectives

Part 1

- To collect data on the age ratings of films shown at the weekend and record the data in a tally chart.
- To draw a pictogram to illustrate this data.

Part 2

- To collect data on the ratings of films shown midweek and record it in a tally chart.
- To combine the data for weekend and midweek films in a single table and construct a comparative bar chart to illustrate it.
- To use the comparative bar chart to answer questions.

Part 3

- To design a questionnaire and collect data on the type of programmes watched by the group.
- To record the results in a table.
- To illustrate the results using a suitable chart or pictogram.
- To use the results to draw conclusions.

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Part 1

Use the TV film guide provided to collect information on the number of films of different ratings shown over the weekend (Saturday and Sunday). Use the tally chart below to record your results.

Table 1

Weekend films				
Film Rating	Tally	Frequency		

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Name	Date



Draw a pictogram on flip chart paper to illustrate the information.

Remember to:

- Choose a simple symbol that is easy to draw.
- Decide how many items each symbol represents.
- Work out how many symbols are needed for each category.
- Keep the symbols the same size, except when only part of a symbol is needed, and line them up so that it is easy to compare categories.
- Include a title and a key.

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Name	Date
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Part 2

Use the TV film guide provided to collect information on the number of films of different ratings shown midweek (Wednesday and Thursday). Use the tally chart below to record your results.

Table 2

Midweek films				
Film Rating	Tally	Frequency		

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Combine the results given in tables 1 and 2 in Table 3 below.

Table 3

Weekend films	Midweek films
	Weekend films

Add a title in the first row of Table 3.

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Name	Date

Draw a comparative bar chart (or separate bar charts for E3 learners) to illustrate the information given in Table 3.

Remember the following;

- Use squared paper.
- Use an easy scale.
- Aim for a large chart that is easy to read.
- Use a ruler and sharp pencil and leave gaps between the bars.
- Give the chart a title saying what it is about.
- Label the axes, giving units where necessary.
- Include a key.

Use the bar chart to answer the following questions:

- 1. How many films in total are shown
 - a) at the weekend
 - b) midweek
- 2. When are most U-rated films shown?
- 3. When are most adult-only films shown?
- 4. How many films shown midweek are suitable for children under the age of 12?

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Name _____ Date _____

Part 3

- Design a questionnaire to find out what kinds of TV programmes are watched by your group.
- Carry out the survey among your group.
- Record your results in a table.
- Draw a pictogram or bar chart to show your results.
- Write three statements about your results using the chart or pictogram. For example;

"5 out of 8 people in our group watch TV police dramas every week".

Films shown on TV Curriculum mapping Adult Numeracy



HD1/E3.1 Extract numerical information from lists, tables, diagrams and tally charts (a) understand that the title, labels, and key provide information (b) use a scale to extract numerical values (c) Know what is meant by a tally (d) Understand use of tally marks as counters and how they are represented in groups of five (five bar gate)

HD1/E3.2 Extract numerical information and make numerical comparisons from bar charts and pictograms (a) understand that comparisons can be made from the height or length of bars, or the number of pictures (b) understand that a picture or icon in a pictogram can represent more than one, but that each picture or icon represents the same number

HD1/E3.3 Make observations and record numerical information using a tally

(a) understand the importance of defining categories prior to collecting data (b) know that know what is meant by a tally (c) know that tally marks have to be counted up to give a frequency

HD1/L1.1 Extract and interpret information (e.g. in tables, diagrams, charts and simple line graphs) (a) understand that the title, labels, key, etc. provide information (b) know how to read the scale on an axis (c) know how to use a simple scale such as 1 cm to 1 m (d) know how to obtain information from a pictogram, pie chart, bar chart, and single-line graph, including use of decimal numbers

HD1/L1.2 Collect, organise and represent discrete data (e.g. in tables, charts, diagrams and line graphs)

(a) know how to choose a sensible scale to fit the data (b) label charts, graphs, diagrams

HD1/L2.1 Extract and interpret discrete and continuous data from tables, diagrams, charts and line graphs (a) understand how to use scales in diagrams, charts and graphs (b) know how to interpret information from bar charts, pie charts, and line graphs with more than one line

HD1/L2.2 Collect, organise and represent discrete and continuous data in tables, diagrams, charts and line graphs (a) understand that continuous data is collected through measurement (b) understand that continuous data can only be collected to a certain degree of accuracy (c) know how to choose a suitable scale to fit the data (d) label charts, graphs, diagrams

http://www.excellencegateway.org.uk/page.aspx?o=sflcurriculum

Functional Maths

Ideal for underpinning the following Coverage and Range statements.

- E3 Extract, use and compare information from lists, tables, simple charts/graphs
- L1 Extract and interpret information from tables, diagrams, charts and graphs
- L1 Collect and record discrete data and organise and represent information in different ways
- L2 Collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate

http://www.ofqual.gov.uk/qualification-and-assessment-framework/89-articles/238-functional-skills-criteria

British film classification information can be found at the British Board of Film Classification http://www.bbfc.co.uk/