



Engaging Places

A resource to support teaching and learning through buildings and places



Data and charts, by Mark Worrall, East Manchester Academy

Curriculum subject/s	Maths
Key stage/s	KS3
Curriculum outcomes	Students will be able to record and interpret data in a suitable chart
Lesson objectives	To be able to collect data, draw a suitable chart and interpret the results

Starter

- Recap the basics of handling data i.e. how to make a tally chart, the meaning of the word frequency, etc. Discuss why we have an 'Other' category when collecting data and discuss the meaning of a hypothesis. (10)

Main

- Choose a suitable topic to survey (dependent on ability of class) using the built environment as a theme. Students could survey colours of front doors, number of bedrooms in house, etc.
- Students design a suitable data collection table and collect the data.
- Before conducting the survey, students can write their hypotheses (what do they think is the most/least popular colour of front door and why? Etc.).
- Students should work in groups and collect their data by asking other students in their class or by visiting a local neighbourhood.
- Students display the data in a suitable chart. Teacher to demonstrate how to correctly draw the chosen chart. This can be a pictogram, bar chart or pie chart dependent on class ability.
- For display work, use A3 paper.
- Data could be displayed in a number of different charts and then compared in the plenary.
- This activity could take two lessons dependent on type of survey and data collection method – students may be collecting data outside the classroom. (35 plus extra lesson)

Just around the corner

- Conduct a survey in the local neighbourhood.

Plenary

- Show the charts produced from the survey. Discuss the results. Students should refer back to their hypothesis and comment on any differences.
- What would they do differently if they did this survey again? (15)

Homework

- Set questions to consolidate the learning from the classroom activity (look at APP guidance material for suitable questions for assessment of this topic).

Assessment for learning

Formative:

Using effective questioning techniques (especially in the plenary)

Summative:

Assess work in main body of lesson and homework questions

Resources

- Engaging Places 'in your area' - www.engagingplaces.org.uk

Cross-curricular links

Literacy: Present information and points of view clearly

Personal, learning and thinking skills: Independent enquirers - Plan and carry out research; Team workers - Collaborate with others to work towards common goals; Creative thinkers - Ask questions to extend their thinking; Reflective learners - Invite feedback and deal positively with praise, setbacks and criticism; Self managers - Work towards goals, showing initiative, commitment and perseverance.

This resource is from a bank of resources created for Engaging Places by practising teachers and education professionals. If you have ideas for using buildings and places in teaching and learning, and would like to help us create further resources, please email: engagingplaces@cabe.org.uk