

Tables and timetables

Prior learning

- Can construct frequency tables, pictograms, bar charts and line graphs to represent the frequencies of events and changes over time.
- Can collect, select and organise data to answer questions, draw conclusions and identify further questions to ask.

Learn

- Use the table in the textbook to reinforce effective use of a table of information. This can be extended beyond locating data to making deductions (*Which planet has the shortest orbit time?*), and 'sum' and 'difference' type questions (*How much hotter is Venus than Earth?*).

- The bus timetable provides a range of opportunities for enhancing understanding. Assuming a constant speed for the bus, children should be able to estimate the relative distances between locations. This could lead to a simplified map of the imaginary town. Alternatively, children could question each other about departure and journey times, and/or create further columns for the next three or four buses.

Talk maths

- A range of timetables will be needed for this activity to succeed. If it is impractical to get these from bus and railway stations, remember that a wide range of timetables, including interactive ones, are available online.
- There are ample learning opportunities in planning agendas for day trips, including waiting times. More confident learners can move on to plan world travel via online research.

Activities

- This section in the textbook will consolidate skills and vocabulary developed so far. To provide extended, context-based work the links to *100 Maths Lessons Year 5* provide scenarios and resources that can be very effective with appropriate planning.

- If further practice in using bar charts or line graphs is required, challenge the children to consider how they would interpret the information in the planets chart and bus timetable. Can they create charts and graphs for these?

Problems

- Once children have solved the problems, encourage them to develop their own, in particular with new bus times for later in the day, which they will need to calculate for themselves.
- *100 Maths Lessons Year 5, Summer 2, Week 6*, which may have been used when studying line graphs, can also provide experience in creating charts and tables.

Tables and timetables

Learn

Information is often presented in tables. This table provides complicated information about some planets in our solar system.

Planet	Diameter (km)	Day length (hours)	Orbit time (days)	Temp. (°C)
Mercury	4878	4223	88	167
Venus	12,104	2808	225	480
Earth	12,756	24	365	20
Mars	6794	24.5	687	-65

You can spot facts about planets and compare them too. Each column has different units.



This timetable shows bus times from the bus station to the local school.

Check with a partner that you know how to read the timetable properly. These buses have a circular route. Can you see the halfway point?

Can you see the difference between the number 6 and 7 bus routes? Why wouldn't you go to the supermarket on the number 6 bus? What is the longest time it takes to get between two stops?

Bus number	6	7	6	7
Bus station	10:00	10:15	10:30	10:45
High Street	10:08	10:23	10:38	10:53
Supermarket		10:30		11:00
Train station	10:15		10:45	
Doctor's surgery	10:24	10:34	10:54	11:04
School	10:27	10:37	10:57	11:07
Doctor's	10:30	10:40	11:00	11:10
Train station	10:39		11:09	
Supermarket		10:45		11:15
High street	10:46	10:52	11:16	11:22
Bus station	10:54	11:00	11:24	11:30



Can you spot the patterns for the bus times?

Tips

- Use your fingers to help you trace along timetables and charts. Or if you have a ruler available, using this is even better – it is easy to misread timetables and charts.

Let your fingers do the walking!



Talk maths

Timetables are available from bus and train stations. They are also on the internet, and sometimes these are interactive.

Use timetables to plan a day trip. Plan at least four journeys with as little time waiting as possible.



Did you know?

There are over 5 billion bus journeys made in the UK each year.

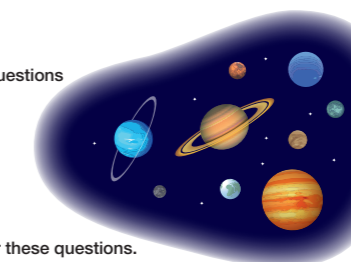
Activities

1. Use the table on page 78 to answer these questions about our solar system.

- Which is the largest planet?
- Which is the coldest planet?
- Which planet has the fastest orbit?
- Which planets have a similar length of day?

2. Use the bus timetable on page 78 to answer these questions.

- Which bus has a shorter journey from the bus station to the school?
- How often does the number 6 leave the bus station?
- How long is the journey from the doctor's surgery to the school?
- Why do you think the number 6 round journey takes longer?



Problems

Look at the bus timetable on page 78.

Brain-teaser

Trevor has a doctor's appointment at 10:45am. Which bus should he catch from the bus station?

Brain-buster

A number 7 bus arrives at school at 15:07. What time did it leave the bus station?

Curriculum objectives

- To complete, read and interpret information in tables, including timetables.

Success criteria

- I can read and use tables and timetables.

100 Maths Lessons Year 5 links:

- Autumn 2, Week 6 (pages 78–82): collect, organise and interpret information in tables and bar charts
- Summer 2, Week 6 (pages 242–246): plan an investigation to collect and represent data

Year 5 Practice Book links:

- (pages 122–123): Complete a timetable