

Maths topics	Section layout	Accompanying worksheets	Lesson considerations
<ul style="list-style-type: none"> ● Reading line graphs, bar-charts and pie-charts. ● Representing percentages on pie-charts. ● Drawing bar-charts. ● Rounding numbers. ● Reading train timetables and extracting information. ● Calculating speed. ● Definition of carbon footprint. ● Contributions towards personal carbon footprint. ● Ways to reduce carbon use 	<p>This section opens by looking at carbon dioxide (CO₂) emissions from different industries in the UK and the contribution of different forms of transport to CO₂ emissions. Brief mention is made of how we can reduce our contribution to CO₂ emissions that we only have indirect control over. Carbon footprint is defined and students have the option to look at their carbon footprint. Methods of reducing carbon footprint are explored. The final part of the section looks at the greenhouse gas/carbon dioxide emissions of different countries in the world and how perspective changes when the data is looked at per person rather than per country</p>	<p>Sources of carbon dioxide - Foundation/ Intermediate/ Higher - all levels This worksheet asks students to read values from a bar-chart - approximating where values are unclear. Students redraw the data as a pie-chart and think about ways they can reduce their carbon dioxide emissions.</p> <p>Getting on the Train Gang? - Foundation This worksheet requires students to have access to the internet to look up how much CO₂ is put into the atmosphere on different journeys using different forms of transport. Students then work out the emissions per mile of plane journeys and find out that more fuel is used in take-off and landing than in flight. Following this there is a timetable for students to extract information from.</p> <p>Getting on the Train Gang? - Intermediate/ Higher This worksheet requires students to have access to the internet to look up how much CO₂ is put into the atmosphere on different journeys using different forms of transport. Students then work out the emissions per mile and find out that more fuel is used in take-off and landing than in flight. Following this there is a timetable for students to extract information from. Students are given distances and expected to calculate speeds.</p> <p>Carbon dioxide emissions from around the world - Foundation/ Intermediate This worksheet asks students to read data off a line-graph showing carbon dioxide emissions from different countries. Students are then asked to round emissions totals and calculate missing figures in a table and then draw a pie-chart.</p> <p>Carbon dioxide emissions from around the world - Higher This worksheet asks students to read data off a line-graph showing carbon dioxide emissions from different countries. Students are then asked to round emissions totals and calculate missing figures in a table and then draw a pie-chart. Students are asked to comment on rounding errors.</p>	<p>This section should be studied once students are familiar with the concept of percentages and confident at reading information off line-graphs, bar-charts and pie-charts. Some questions require students to compare results and draw conclusions. Students are also expected to draw line graphs, bar-charts and pie-charts, read train timetables and calculate speed. This section would make a good computer-based lesson as pupils could explore the section and work out the contributing factors of their own carbon footprint before looking at the appropriate 'Getting on the Train Gang?' worksheet for their level. This worksheet requires students to have access to a website where they can find out the carbon dioxide emissions of different journeys.</p>