

Before you show them the slides ask pupils what they think some low impact transport solutions might be.

Use the images and text on the slideshow and the information below to lead a discussion.



[Download the PowerPoint Slideshow: Sustainable Transport \( 4.58 MB \)](#)

Some key points to cover and questions to ask in the discussion include:

### **Electric Vehicles:**

- This is a proven technology, unlike many of the other innovative low carbon vehicles they might have seen on television.
- Will require a lot of investment into the infrastructure required for charging or changing batteries.

### **Biofuels:**

- The key disadvantage of biofuel is that we don't have enough land to grow enough food to feed everyone on the planet, and provide large amounts of vehicle fuel as well. Large areas of rainforest have been cut down to grow palm oil to make bio-fuels, resulting in CO<sub>2</sub> emissions from deforestation.

- Some cars are run on bio-diesel made from recycled chip oil. This has a much lower impact than other bio-fuels, but we don't have enough chip oil for everyone – even if everyone in the UK had small cars, drove less distance and more efficiently, we'd only have enough chip oil for 1% of our vehicles.

- Ask pupils which vehicles they think should be prioritised for precious resources like chip oil bio-diesel. Hopefully they will suggest things like farm machinery and emergency service vehicles.

- However if we plan our land use carefully, it will be possible to provide some transport fuel from plants. It is possible for example, to grow woody plants like miscanthus to make bio-kerosene which can be used in aeroplanes.

### **Hybrid vehicles (like the Prius):**

- This is a technology for making vehicles more efficient by capturing the energy wasted during braking, however a large hybrid vehicle can still have higher carbon dioxide emissions per mile than a small vehicle without hybrid technology.

- The manufacture of new efficient electric vehicles is still energy intensive, and we will all need to travel less.

- Good cycling and walking facilities will become very important.