

Fuels

- **What is a fuel?**
- **How do fuels store energy?**
- **What is a fossil fuel?**
- **How can we release the energy stored in fuels?**
- **How can we control fires?**
- **What is “combustion”?**
- **What is the difference between complete and incomplete combustion?**
- **Why do we use catalytic converters?**
- **How can we reduce carbon dioxide emissions?**

Fuels

- **What is meant by “conservation of mass” in chemical reactions?**
- **What is the impact on the environment of burning fossil fuels?**
- **What is the “carbon cycle”?**
- **What is meant by a “finite” energy source?**
- **Which energy sources are “finite” and which are “renewable”?**
- **What are the benefits and risks of different energy sources?**
- **What is meant by “biomass”?**

Hydrocarbons

- **What is a hydrocarbon?**
- **Where does crude oil come from?**
- **How can use fractional distillation to make crude oil useful?**
- **What are the differences between alkanes and alkanes?**
- **How can we name alkanes and alkenes?**
- **How can use cracking to make crude oil useful?**

Everyday consumer products

- What is a carbohydrate?
- What do we use carbohydrates for?
- How can we test for glucose and starch?
- How can we break starch down to form glucose?
- How can we make alcohol from sugars?
- How can we create high percentage alcoholic drinks?
- How do we classify the alcohol content of drinks?

Plants to Products

- What products can we make from plants?
- How can we convert plants into useful products?