Simple Chemical Reactions

Whoosh Bottle

This reaction can be applied to curriculum for excellence.

> *Through experimentation, I can identify indicators of chemical reactions having occurred … and can relate my findings to the world around me.*
>
> SCN 3-19a

N4 Chemical change & structure
- *Energy changes of chemical reactions*

N4 Nature's Chemistry
- *Fuels*

N5 Nature's Chemistry
- *Energy from Fuels*

Revised Higher - Consumer Chemistry
- *1c) Uses of alcohols*

Whoosh Bottle

Apparatus you will need

18 l narrow necked polycarbonate container ('PC' mark on the base)

Metre Rule

Wooden Splint

Chemicals you will use

40 cm^3 Industrial denatured alcohol (IDA is highly flammable)

If you are planning on using alternative fuels contact SSERC first for advice.

What you will do

1. Check the container for signs of damage, frosting or cracking. Any found then discard and replace. Also check that it is completely dry inside.
2. Ensure the distance between the container and the ceiling is more than 2.5 metres and that there is nothing on the ceiling over the demonstration area that could be set alight.
3. Add the alcohol to the container and insert a rubber bung. Roll the bottle on its side for 10 seconds.
4. Drain any excess alcohol back into the original bottle and remove to at least 1 metre away from the demonstration area. Use care when removing the bung to ensure that any excess alcohol does not spray out.
5. Wipe off any excess alcohol from the outside of the bottle.
6. Attach a splint in a downward angle to the end of a metre rule.
7. Light the splint and hold over the neck of the bottle.

Safety

Demonstrator & audience to wear eye protection.

It is the responsibility of teachers doing this demonstration to carry out an appropriate risk assessment.

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