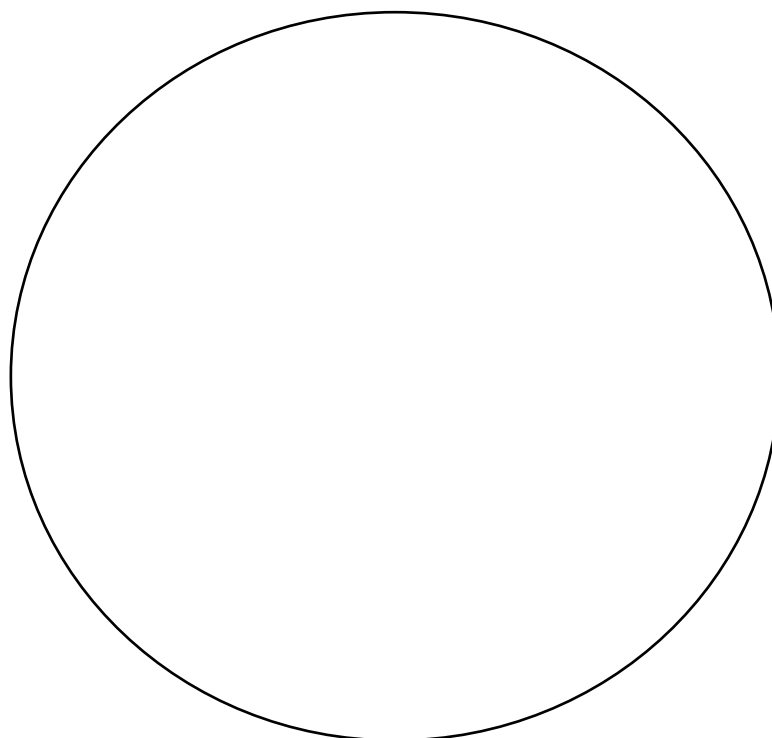


## Redox chemistry with dichromate ions – student sheet

In this experiment you will be looking at the reaction between two substances containing oxygen.

### Procedure

- Cover the worksheet with a clear plastic sheet.
- Put one drop of potassium dichromate solution in the circle below.
- Add one drop of 5% hydrogen peroxide to the potassium dichromate solution.



### Questions

1. Observe carefully. Are there any changes over the next few minutes?
2. Give an explanation for your observations and try to write an equation for the reaction.
3. What type of reaction is occurring?

### Health, safety and technical notes

- Read our standard health and safety guidance here <https://rsc.li/3CBQD2Y>
- Students must wear suitable eye protection (Splash resistant goggles to BS EN166 3).
- Potassium dichromate,  $K_2Cr_2O_7$ ,  $0.2 \text{ mol dm}^{-3}$  is a carcinogen, mutagen, reproductive toxin, skin and respiratory sensitiser. It is also toxic if inhaled, corrosive to skin and eyes and toxic to aquatic life. Wear splash-proof eye-protection if transferring large amounts. Avoid skin contact. See CLEAPSS Hazcard HC078c.
- Hydrogen peroxide, 5% solution  $H_2O_2$  (aq) is of low hazard. See CLEAPSS Hazcard HC050.