

## The properties of the halogens

### *Education in Chemistry*

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[rsc.li/EiC118-preciouswater](http://rsc.li/EiC118-preciouswater)

**This experiment accompanies the above article 'Precious Water'.**

The halogens are important elements. They are used in a huge number of chemicals that are useful to our everyday lives. Dissolved in water, and even in their elemental forms as Cl<sub>2</sub>, Br<sub>2</sub> and I<sub>2</sub>, they can act as antibacterial agents.

We are going to investigate the antibacterial properties of halogen waters by looking at how well they stop bacteria from growing.

You are provided with the following equipment:

- Agar plates covered with bacterial 'lawn'
- Discs of filter paper soaked in halogen waters
- Tweezers

Before you begin check you know the correct procedure for working with bacteria and consider the following questions:

- What do you need to record about the bacteria used?
- What do you need to record about the halogen waters?
- What do you need to record about the discs?
- How will you know which halogen water worked best?
- How long will you leave the plates before you check the results?