

## Chemical cells and fuel cells recall questions

1. Cells contain chemicals which react to produce **electricity**.
2. Say two things the voltage produced by a cell depends on. **The type of electrode and the type of electrolyte**
3. A simple cell contains two different **metals** in contact with an **electrolyte**.
4. What are two or more cells connected in series called? **A battery**
5. Alkaline batteries are non-rechargeable. Explain why. **Because one of the reactants gets used up and the reaction can't be reversed easily**
6. How are rechargeable batteries recharged? **The chemical reactions are reversed when an external electrical current is supplied**
7. A simple reactivity series is: Mg Zn Fe Cu  
Which two metals would give the biggest voltage in a cell? **Mg and Cu**
8. What two chemicals react in a fuel cell? **Hydrogen and oxygen**
9. What is the product of the fuel cell reaction? **Water**
10. Say one advantage and one disadvantage of hydrogen fuel cells compared to rechargeable cells and batteries. **Advantage: No polluting gases or carbon dioxide (a greenhouse gas) are made. Disadvantage: Expensive to make due to the high cost of the catalysts they use**

# Chemical cells and fuel cells application questions

1. Complete the fuel cell half equations:

