Name ..... Class ..... Date .....

C6 Electrolysis – Aiming for Grade 4

Aims

In this activity you will make a poster about electrolysis.

Learning outcomes

After completing this activity, you should be able to:

- describe what happens to an ionic substance when it is electrolysed
- describe what happens at the positive and negative electrodes to form elements.

Task

You are going to produce a poster on an A3 sheet of paper. To help you do this, first complete the following questions. You can then cut out your answers to stick on to your poster.

Questions

1 Choose from the following words to complete each of the sentences below:

gas	electrodes	negative	ions	electricity	elements

Ionic solids are made up from _____ bonded together.

The rods are called _____. One is positive, one is negative.

Ions are particles that have a positive or _____ charge.

_____ form at the electrodes. They do not have a charge.

The electrolyte is the substance being broken down by _____.

Bubbles show that a _____ has been formed.

(6 marks)

2 The six diagrams in the table on the next page show what happens when a substance is electrolysed. Match each of the descriptions **a** to **f** that explain what happens during electrolysis with the correct diagram. Then write each description in the space below its diagram.

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Here are the descriptions to match to the diagrams:

a Ions with a positive charge will gain an electron and become an element. *(1 mark)*

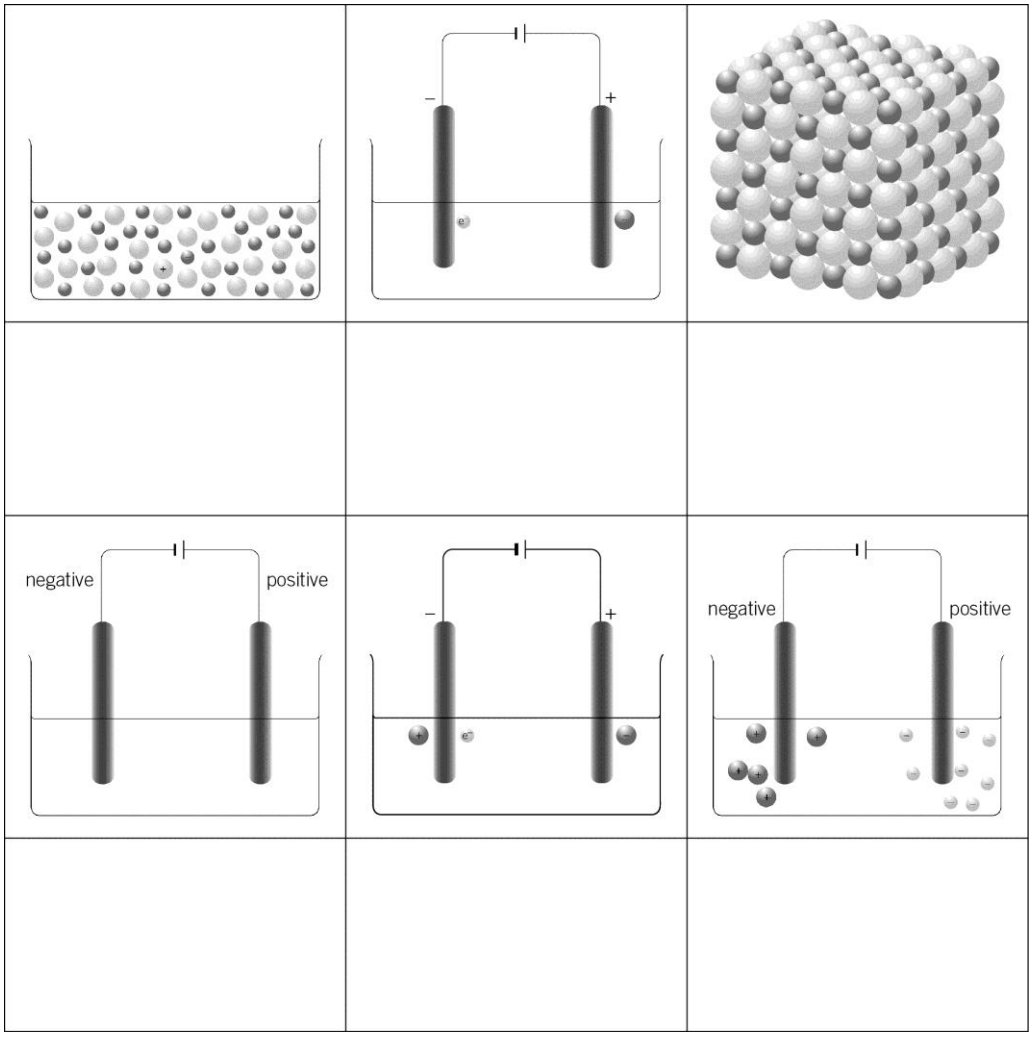
b When an ionic substance is melted or dissolved, the ions are free to move about and conduct electricity. *(1 mark)*

c An ionic substance cannot conduct electricity when it is a solid. *(1 mark)*

d Electrodes can be placed into molten or dissolved ionic substances to make a circuit. *(1 mark)*

e Ions with a negative charge will lose electrons and become an element. *(1 mark)*

f Ions with a positive charge will be attracted to the negative electrode. Ions with a negative charge will be attracted to the positive electrode. *(1 mark)*



Now cut out the boxes (making sure you keep each box and its description together) and stick them onto your poster. Put them into the correct order to show what happens when an ionic substance is electrolysed.

3 Cut out the boxes you completed in Question 1 and stick them on to your poster as labels. Make sure you link each label with the correct place on the diagrams you have already stuck on. *(1 mark)*