

Resources and Recycling

KS3 Chemistry · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Why are metal ores called 'finite' resources?

Step 1 · How they formed

Ores formed over millions of years by geological processes.

Step 2 · Using them

We are mining them far faster than they can form.

Answer: There is a limited amount and they will run out

Check: Fossil fuels are finite too.

2. Now try one with the steps

Give THREE benefits of recycling aluminium cans.

Step 1 · Energy

Step 2 · Resources

Step 3 · Waste

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is a finite resource? [1]

2. Give ONE finite resource we get from the Earth. [1]

3. Give ONE renewable resource. [1]

4. What are the three Rs, in order of best to worst? [1]

5. About what percentage of energy is saved by recycling aluminium? [1]
-
-
6. Why is steel easy to separate from other waste? [1]
-
-
7. Give TWO environmental problems caused by mining. [2]
-
-
8. Why can paper only be recycled a few times? [1]
-
-
9. Why is it hard to recycle many plastics? [2]
-
-
10. How does recycling metals help reduce climate change? [2]
-
-
11. A school collects 2400 cans in a term of 12 weeks. What is the mean number per week? [1]
-
-
12. Suggest ONE reason why recycling rates differ between local councils. [1]
-
-
13. Why is reusing a glass bottle better than recycling it? [2]
-
-
14. Copper ores used today contain less than 1% copper. Explain why this makes recycling copper more important. [2]
-
-

4. Before you hand it in

"Recycling uses no energy."

Recycling usually uses LESS energy than making new material, not none.

"All plastics can be recycled easily."

Check local guidance; reduce and reuse plastics where possible.

Thinking 'renewable' means 'recyclable'.

Renewable = can be replaced naturally (wood); recyclable = can be processed and used again (aluminium).

"We'll never run out of metals."

Easily mined, rich ores are being used up; lower-grade ores need more energy.