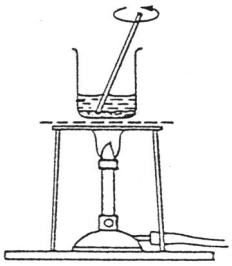
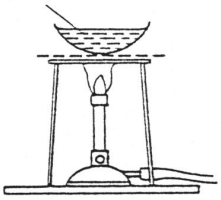
MAKING COPPER SULFATE

METHOD

 Wear eye protection	 Be careful of hot apparatus. Do not let the acid boil.	 sulfuric acid	 copper oxide copper sulfate

1) Measure out 30 cm^3 of sulphuric acid.
2) Place the acid into a 100 cm^3 beaker.
3) **Gently warm** the acid using a Bunsen as shown. **Do not boil** the acid or let it get hot.
4) Add copper oxide one spatula at a time until it no longer reacts. You will be able to tell because there will be left over black copper oxide solid. Keep the acid warm – you may need to keep heating it for a few seconds, and then take the Bunsen away again.
5) Filter and wash the mixture into a conical flask.
6) Transfer the filtrate to an evaporating basin. Write your name on the basin using a permanent marker pen.
7) Carefully put the evaporating basin on the tripod and gauze, making sure that it will not tip over easily. Boil the copper sulphate solution until crystals start to form around the rim.
8) When cool, place the dish in the place your teacher tells you.
9) Next lesson, filter and wash the crystals and leave them to dry on a piece of named filter paper





QUESTIONS

1) Write a word equation for this reaction. ……..

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2) Write a balanced equation for this reaction. ……...

3) Why was it important that there was no left over acid in the mixture? ……...

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4) How did you ensure there was no left over acid in the mixture? ……...

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5) Why was it important that there was no left over base in the mixture? ……

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6) How did you ensure there was no left over base in the mixture? ……..

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7) Why was the water not all evaporated? ……...

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8) Explain why crystals formed as the solution cooled. ……

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