

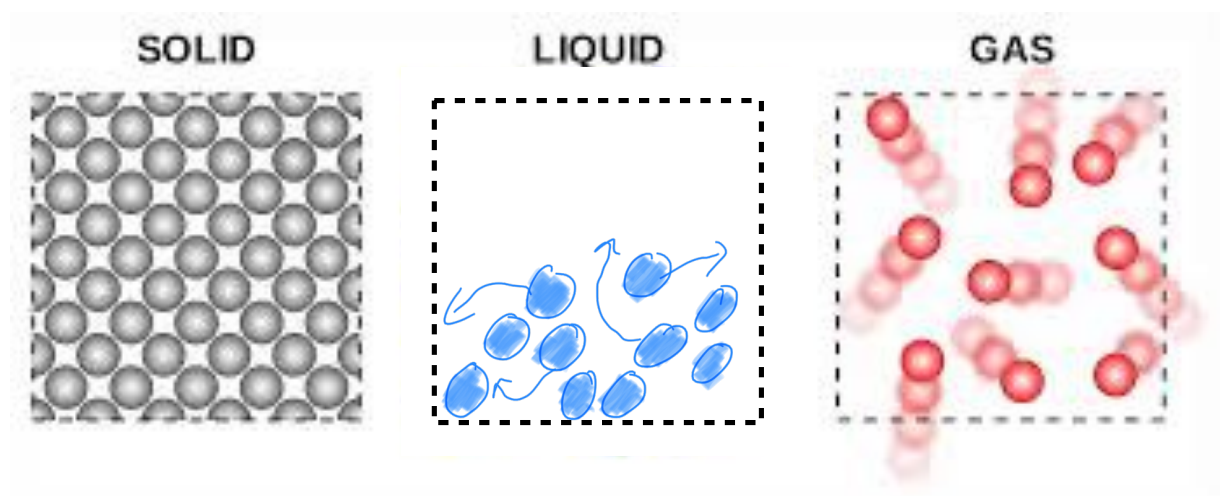
# Chemistry test

Autumn term 2020

score: / 22

Here is a diagram showing how molecules are arranged in solids and gasses

1. Complete the box for liquids. (2 marks)



2. Use the diagram above to explain these facts (4 marks)

- a. paperclips are hard to bend, but hold their shape when bent.

In a solid atoms are tightly packed and cannot slip past each other easily so solids are hard to shape.

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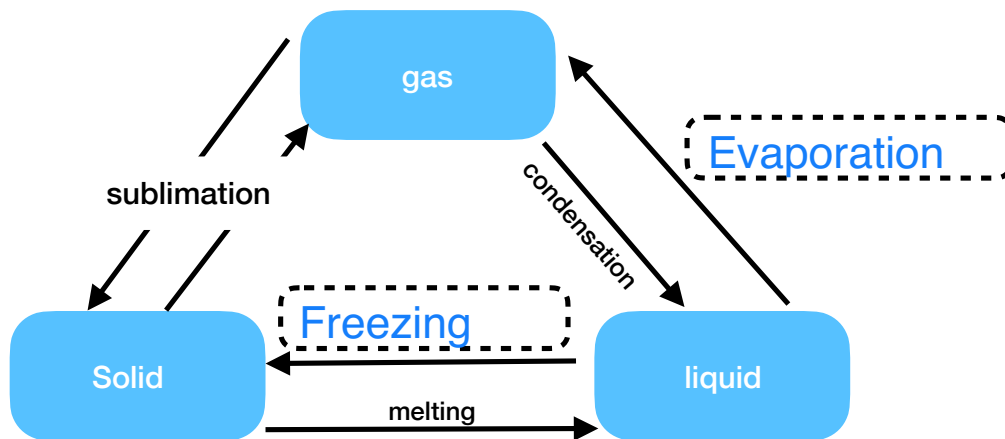
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- b. If someone burns toast in a different room you can smell it.

Gas molecules are free to move about and can slip past each other easily, they expand to fill their container which is why smells travel easily

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3. Fill in the gaps (2 marks)



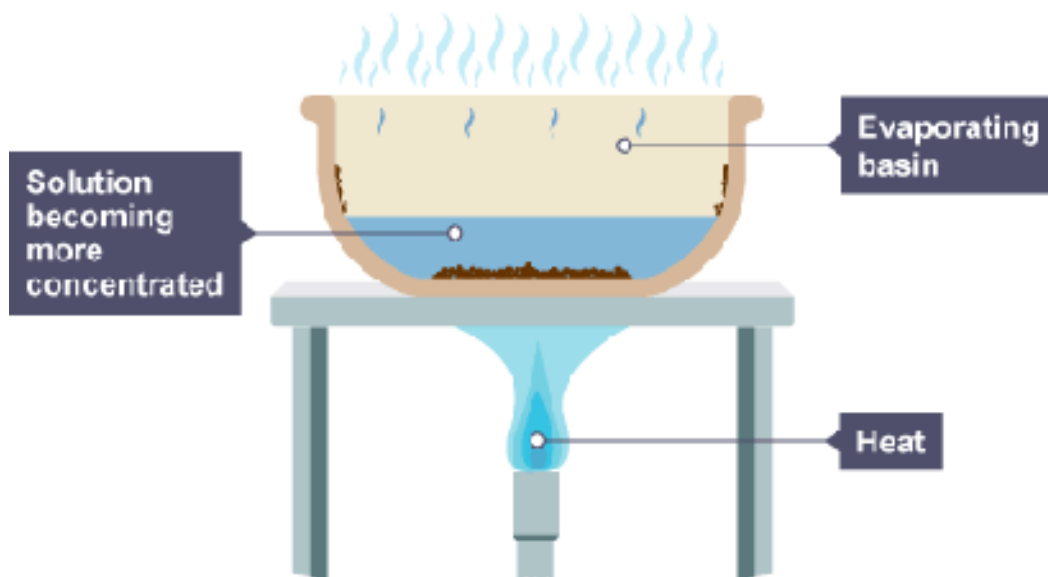
4. Below is a picture of equipment used to produce salt crystals from sea water. Explain the following (4 marks)

a. The evaporating basin is wide and shallow.

This gives the solution a large surface to absorb heat and evaporate quickly

b. The solution is being heated

When water is heated it evaporates faster because the water molecules have more energy



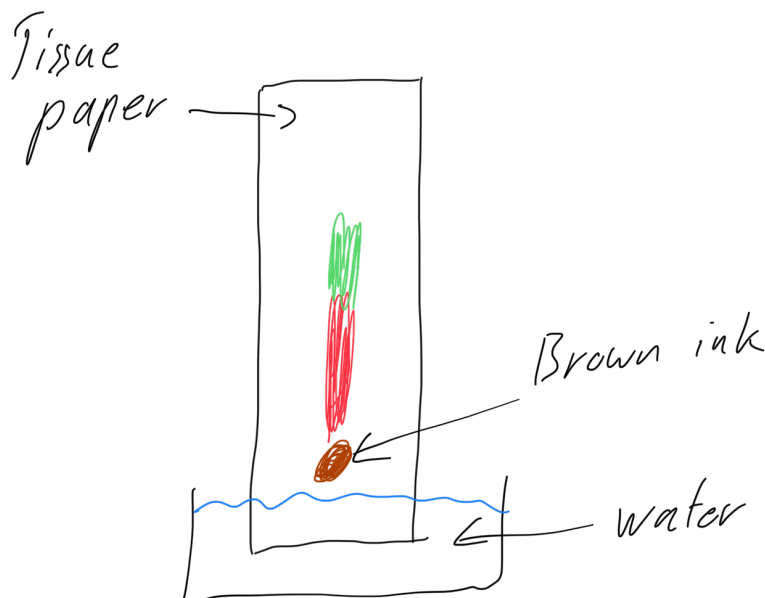
5. If you have a dry mixture of sugar and sand. How would you get a dry sample of sand? (3 marks)

Add hot water to the mixture and then filter it to remove the sand. Next heat the sand to dry it

6. fill in the blanks (4 marks)

Atoms are tiny particles which make up all the matter around us. Atoms have a nucleus at their centre which is a collection of *protons* and neutrons, other particles called *electrons* orbit the nucleus. There are always the *same* number of *electrons* and protons in any atom.

7. Draw a diagram showing the equipment you would need to find out what ink pigments are in brown ink. Write a short description explaining how to do the experiment. (3 marks)



Put a spot of brown ink at the bottom of a piece of tissue paper and then dip the paper in water allowing the water to rise up the tissue paper. Observe the colors that are shown above the brown ink spot.