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| <p>measure or research the temperature at which this happens in degrees Celsius (°C)</p> | <p>Children match materials with their melting and freezing points. Melting Chocolate: Introduce the context for the investigation. Model the investigation by placing a square of chocolate in three different foil tins, and then floating the tins on trays of water, each of which has a different temperature. State that they will observe how long it takes the chocolate at each temperature to melt. Children should plan their investigation - and make a prediction - and then conduct the investigation. Look for children who have a good understanding of how materials change state by heating and cooling. Freezing Chocolate: Children discuss Maya’s idea (put chocolate outside to freeze). Their thoughts may depend on what the weather is like, leading to discussion of the freezing point of chocolate. <i>*Perhaps make chocolate crispy cakes to demonstrate melting and freezing*</i></p> <p>The Three States of Water: Find out more about the processes and temperatures that cause changes of state using a game http://www.bbc.co.uk/schools/410.shtml Exploring the Processes: Explain and clarify the children’s understanding of the process of melting, freezing, evaporation and condensation using scientific diagrams. Ice Cube Investigation, Reversing Changes and Salt and Ice: Organise the children into groups. The children should draw and label their observations as they work through the carousel of activities. Look for children who can identify the different states that the water is in, and who can explain the processes that change the state of the water. Guess the Process: Children play game in teams - draw a picture of the process for their group to guess.</p> | <p>Melt, freeze, condense, evaporate, process, state, water, ice, water vapour.</p> |
| <p><u>How working scientifically can be met</u></p> <ul style="list-style-type: none"> close observations plan predict investigate <ul style="list-style-type: none"> close observations label diagrams | | |
| <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p> | <p>Recap the process of evaporation. Explain that evaporation is responsible for the fact that clothes dry when you hang them on a washing line. Children read statements about evaporation stuck around the room, and think about whether they disagree or agree with each one. They can write their thoughts and ideas around the statements. Share and address any misconceptions. Does the Temperature Affect How Fast Towels Dry? Introduce the investigation. Ensure that children understand that when the towels dry, the water will evaporate from them. Describe the equipment the children will have access to. Ask the children to plan their investigation and carry out their investigation</p> | <p>Evaporation, particles, liquid, gas, weight, dry, energy, state, heat.</p> |
| <p><u>How working scientifically can be met</u></p> <ul style="list-style-type: none"> plan and carry out a comparative test using equipment accurately | | |

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| <ul style="list-style-type: none">• results • identify• describe• explain | <p>accurately. Children are to record their results.</p> <p>Displaying Your Conclusions: Ask the children to look at their results. They should describe their results and come to a conclusion. Look for children who can describe and explain the effect of temperature on evaporation in the context of drying washing.</p> <p>Sharing Ideas: Children look at each other’s results and conclusions, and discuss whether they agree and if their conclusions and answers are similar. Discuss similarities and differences.</p> <p>Discuss each part of the water cycle and locate labels on the diagram (IWB). Explain the four stages of the water cycle: evaporation, condensation, precipitation and collection. Ensure children understand that the water changes state as a result of these processes. Address any misconceptions.</p> <p>Mini Water Worlds: Ask the children to work in pairs to make mini water worlds. Children will be able to view evaporation, condensation and precipitation in action over the next few days. (You could take photos of the water worlds as they develop, and stick the printed photos into the children’s books/working wall).</p> <p>Water Wheel: Children to create an interactive model of the water cycle. Look for children who know the stages of the water cycle and can explain what happens at each stage.</p> <p>Sort the Stages: Children try to solve the anagrams of the four stages of the water cycle on IWB before placing the stages in the correct order.</p> | <p>Evaporation, condensation, precipitation, collection, clouds, rain, sleet, hail, snow.</p> |
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