

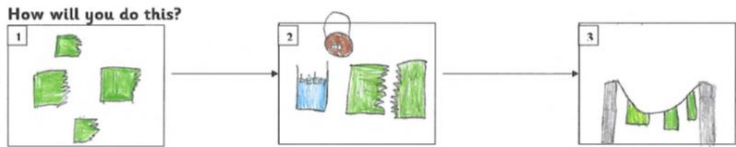



Topic: Materials: States of matter	Year 4 Age 8-9	Title: Drying materials
Working Scientifically Plan: Set up a fair test		Concept Context Rate of evaporation
Assessment Focus <ul style="list-style-type: none"> • Can children identify what is to be changed and what is to be kept the same? • Can children identify what to observe/measure to see if there is a difference? 		
<p>Activity <i>Today we are going to be materials engineers</i></p> <p>Plan an investigation to reach a conclusion within a real life context, e.g. Where is the best place to dry your washing? Which conditions are the best to dry materials by evaporation? Make a list of different places/conditions (e.g. temperature or draughtiness). Discuss how to know if it is dry e.g. dry to touch, handprint no longer visible, no imprint on tissue. In small groups, children to decide on the type of material (cloth/paper towels), quantity of water, locations to test evaporation (e.g. could arrange washing lines in different locations around the school) and how often to observe/check. Provide measuring equipment including thermometers, jugs, rulers. Pupils could record their method before/after set up. N.B. Paper towels can dry in an afternoon, heavy fabric will take longer.</p> <p>Adapting the activity </p> <p>Support: Scaffolded questioning to support setting up fair test.</p> <p>Extension: Ask further investigation questions e.g. what is the temperature / humidity of your locations?</p> <p>Other ideas: Data logger could be used to measure temperature of room over a 24 period and children could discuss which would be optimum time to dry washing.</p> <p>Questions to support discussion</p> <ul style="list-style-type: none"> • What factors do you think will affect evaporation (drying)? • What will you do? • What will you change? • What will you keep the same? Why? • What are you measuring? • How will you record your observations? <div style="text-align: center;"> <p>How will you do this?</p>  </div>		
<p>Assessment Indicators</p> <p>Not yet met: Can make suggestions about how to answer the question but needs support to explain which variables must be kept the same.</p> <p>Meeting: Can set up and carry out a fair test. Is able to say what is changed and that other factors which could affect evaporation are kept the same, e.g. <i>I will keep the same...amount of water, size of material.</i></p> <p>Possible ways of going further: Recognises additional variables and could suggest some controls, e.g. <i>have a dry towel outside to check it doesn't rain, put under gazebo so if it rains it doesn't get more wet.</i></p>		

 Teacher box 4 - gather evidence in a range of ways. See TAPS pyramid for more eggs.