





Topic: Materials:	Year 4		Title:
States of matter	Age 8-9		Drying materials
Working Scientifically Focus Plan: Set up a fair test		Conceptual Knowledge Context Rate of evaporation	

Assessment Focus

- 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?

Activity

Plan an investigation to reach a conclusion within a real life context, e.g. Where is the best place to dry your washing?

Ask children, which conditions are the best to dry materials by evaporation? Make a list (warm, dry, windy). Discuss different places to investigate.

In mixed 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.

N.B. Paper towels can dry in an afternoon, heavy fabric will take longer.

Adapting the activity

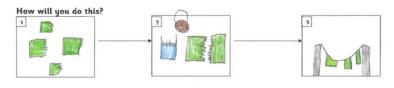
Support: Questioning to support setting up fair test.

Extension: Ask further investigation questions e.g. what is temperature / humidity of your locations?

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.

Key Questions

- 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 you observations?



Assessment Indicators

Not yet met: Can make suggestions about how to answer the question but needs support to explain which variables must be kept the same.

Meeting: Can carry out a fair test and is able to say what is changed and that other factors which could affect evaporations are kept the same, e.g. *I will keep the same...amount of water, size of material.*

Exceeding: Recognises additional variables and could suggest some controls, e.g. have a dry towel outside to check it doesn't rain, put under gazebo so if it rains it doesn't get more wet.