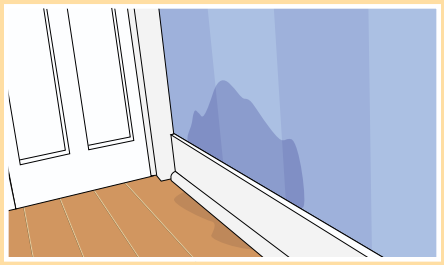
Keep the Damp out

Activity

Equipment	Sugar cubes, small container (e.g. plate or saucer), water, food colouring, pieces of material for testing (e.g. plastic, kitchen towel, kitchen paper, greaseproof paper) 
Suggested class level	1st – 6th
Preparation	None
Background information	Old houses tend to be damp because they have no 'damp course'. Bricks absorb moisture from the ground (see Activity in the pack on 'Absorption') and this moisture rises up the walls ('rising damp' as it is often known). In newer houses a layer of plastic (or other non-absorbent material) placed between the bricks near the ground stops the moisture rising. This is called a 'damp course'. Ventilation (the circulation of air) is another very important factor in keeping damp away.
Trigger questions	What is damp? Damp is water rising from the ground through materials. What is condensation? Condensation is water from the air forming droplets on cool surfaces. Where would you find damp? Where would you see condensation? Do you know any old houses? Do they feel any different? How do they smell? Why are they often damp? What do damp walls look like? (Black patches, mould, plaster/paint falling off, etc.)
Cross-curricular links	History – how people lived in Ireland (life-styles, types of houses, etc.) Geography – houses with mud walls
Skills	Predicting Investigating Experimenting

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Activities

Aim of Investigation:

What material will make the best damp course?

1. Put a small amount of water in the container, and add a few drops of food colouring (it makes it easier to see the water rising).
2. Put some sugar cubes, one on top of the other, into the water. Wait a few minutes and watch what happens.
3. Now put a fresh sugar lump into the water, put a piece of kitchen towel on top of it, and then another sugar lump. What happens?
4. Repeat Stage 3 several times, putting pieces of different material each time between the bottom sugar lump and the next one.

Which of these materials would you think would make the best 'damp course' if you were building a house?

Safety

Care with water.

Follow-up activities

Time how long it takes for the water to reach a certain place, e.g. the top of the second cube.

References

Discover Primary Science pack- activity on absorption

Eureka, Irish Independent, Vol. 2, No. 9, November 2005