



Waterproof or not?

In our play, our characters try to move on from the confusing events by sending the reborn Taliesin downriver. But are any of the carriers really suitable?

Step 1: Re-watch [the section](#) of the play again.



Step 2: Ask the pupils which of the carriers they think would have kept the baby dry. *Do you think they'd really work?*

Step 3: Tell the children we're going to find out. Today they'll conduct an experiment, *like real scientists*, to find out which materials would keep the baby dry.

We will place sugar cubes in cups and cover them in different materials. If we leave the cups in the rain, we can find out which material we should use.

You will need:

- ***a variety of malleable materials in various sizes***
- ***cups***
- ***sugar cubes or flour***

Literacy Framework

Show understanding of what they have heard by asking relevant questions to find out specific information.

Share activities and information to complete a task.

Progression Statements

Science and Technology

I can recognise patterns from my observations and investigations and can communicate my findings.

I can use my knowledge and understanding to predict effects as part of my scientific exploration.

- ***elastic bands***

Step 4: Using [this PowerPoint presentation](#), work your way through planning, preparing and predicting the experiment. ***This can be done as a class discussion or written work depending on ability.***

1. Our Question

We need a material to help keep the baby dry in the river. Guide the children towards a question of *“Which material is waterproof?”*

2. Variable

Explain that scientists only change one thing in an experiment; the one thing we want to know how it works. *Here, that is the material.*

3. Fair Test

The only way of knowing if it's the material that's keeping the sugar dry is to make sure that all other elements stay the same. Discuss why. *Could a bigger cup let in more rain? Should some cups be in the shade? Can I double up the materials on some cups? Why not?*

4. Measurement

How will we know if it's worked? *What are we going to see that tells us that the material is waterproof. What will happen to the sugar?*

5. Equipment

Ask the children to think about all the equipment they'll need to conduct the experiment. They can draw and label these or write a list.

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6. Prediction

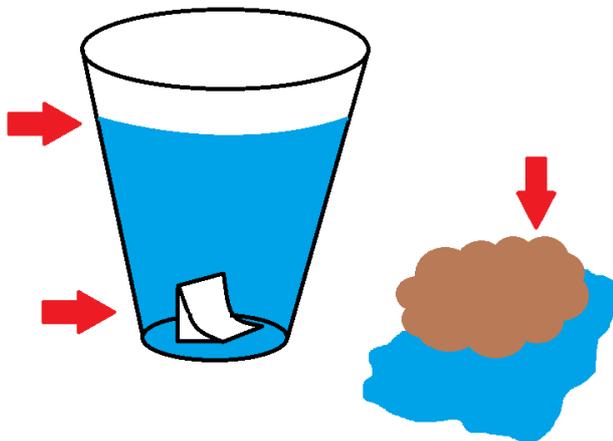
Which material will keep the sugar driest? Why do you think this? *Encourage the use of “waterproof” and examples where they’ve seen that material being used for a similar purpose before.*

Step 5: Conduct the experiment, leaving the covered cups outside in the rain for a few days.

Step 6: Return to the PowerPoint:

7. Results

Look at, discuss and then draw the results from the experiment!



8. Conclusion

Discuss what we’ve learned in our experiment. *Were you right? Was your choice of material waterproof? Which material should we use to help the baby stay dry?*