



Insulation

LO: TO KNOW WHAT MATERIAL KEEPS A CUP OF WATER WARM FOR THE LONGEST TIME.

Heat and insulation



<https://www.bbc.co.uk/bitesize/clips/zkntsbk>

What does the word **insulation** mean to you?

Why do we need to insulate objects?

How do you insulate yourself in the cold weather?

How do you insulate yourself when you are sleeping?

How do animals insulate themselves?

Pupil Challenge



Tuesday 26th January

Dear Class,

Your teachers works very hard at school and sometimes they are desperate for a hot drink. Unfortunately, when they eventually get to drink it, it is cold. This makes your teachers very sad indeed. Can you help your teachers to stay hydrated and warm?

Many thanks class.

Mr Hollis

What do I want to find out?



I want to find out.....

What experiment could you design using the objects below to find the most insulating material?



What will your experiment measure? (Dependent Variable)



In my experiment I will measure ...

What will you ensure stays the same during the tests? (Controllable variable)



To make sure the test is fair, I will keep



Which material do you think will be the most insulating? **Make a prediction**



I predict that the _____ will be the most insulating because _____.

I think the least insulating material will be _____ because _____.

Investigation



Results



Container	Time (5mins)	Time (10mins)	Time (15min)	Time (20 mins)
Cup	Still looks hot as steam visible			
Flask				
Glass	The outside of the glass is still hot to touch			



Conclusion

What do the results show?

Was your prediction correct?

Critical reflection

Is there anything you would do differently next time?