

## Primary Light & Sound: bear cave

A KS1 experiment exploring light and materials, using Can't You Sleep, Little Bear? as a literacy link to this science practical.

The Ogden bear cave Phizzi practical resource sheet can be found on our website with a range of other primary curriculum resources:

<https://www.ogdentrust.com/resources>

### Transcript

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Hello - my name's Hayley Moyle. I'm from Hillstone Primary School - a school which is one of the

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Ogden Trust pilot partnership schools. I'm here today to show you some experiments that you can

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do in your own classroom with your own children. The first one is a Key Stage one based experiment

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which will look at light and also at different types of materials and how they let through light.

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So this is called the bear cave experiment and quite simply the bear cave is represented by a

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black bucket - I've done this with the children in my classroom and they find this really exciting!

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So, all you need is a medium sized bucket, it can be large if you want more children to work on

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the same one or small if you want the children to make it themselves. You need a small peephole

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which will be the children's viewing hole and then also a larger hole. Taking a square shape on

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the back, and just simply two Velcro strips at the top and at the bottom which you can then attach

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different types of material to, and then inside you need to stick lots of different pictures.

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It is nice to use images from the text [Can't You Sleep Little Bear] - the bear, the lantern, maybe a different sized lantern that

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the mummy uses, some of those images inside of the bucket can be reflective. So the first part

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of this experiment is to have your children have a look through the peephole with an opaque

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cover on the window to see if they can see what's inside and when they do look inside the cave, they

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won't be able to see much at all. So this is when the learning about light sources comes in.

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Take an LED candle switched it on then place that underneath inside your cave. Get the children

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to take a look now and they will find it amazing what they can see inside their cave now. They will

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be able to see obviously all of the reflective pictures inside there and there's a really good

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lead onto a conversation about materials. Some of your children may have noticed that from the start

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of the experiment they could see a fireplace in the background - that will lead really nicely onto

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a discussion about translucent materials and how light travels through them; while you're on

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the topic of materials, this is when your window comes into play a bit more, and I've got a range

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of different types of materials here - some translucent, some opaque, some transparent and the children

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can explore how light travels through different materials and allows us to see what's inside the

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cave. So here I've got my nice pink curtain and when your children take a look inside for the

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third time they could compare what they can see now to what they could see the first time.

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Misconceptions that some children in my class have had when I've done this experiment before,

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is that mirrors are light sources - so really nice idea, after placing the opaque window back on, is to

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put a mirror into the cave - what can they see now? If they can't see anything, why can't they

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see anything? Loads of discussion leading on from there - you may have some gifted and talented children in

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your class as well and a really super idea with this experiment leading on from what we've

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already done is the concept that light doesn't beam from our eyes, which is a massive misconception

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with younger children, the fact that light needs to bounce into our eye to enable us to see. So that's

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just one of the experiments we're going to have a look at today - that was the bear cave experiment.

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