

Early Years Home Learning Challenge

Wonderful Winter



Our children have really been enjoying the frost, snow and ice at school over the past few days; that burst of wintery weather was certainly enough to boost spirits young and old and the week certainly started with a renewed sense of excitement! This Home Learning challenge will continue to focus on winter and explore that awe and wonder that I think we all felt playing out in the snow.

Make your own snow

As we all know, here in London we aren't exactly blessed with the huge amount of snowfall that we see further north and, when we are lucky enough to get some, it just doesn't last. However, this doesn't mean playing in the snow stops though; it is surprisingly easy to make your own snow and bring the fun inside. All you need is a tray, equal amounts of cornflour and bicarbonate of soda (we recommend starting with 250g of each but you can add more/less according to your needs) and a little water. Combine the dry ingredients before gradually adding water. Stop adding water when the mixture has a snow-like consistency e.g. it can be pressed into a shape but also crumbles. Now you're ready to play! The beauty about this recipe is that it is completely foolproof. Too runny? -add some more cornflour and bicarbonate, too dry? - gradually add more water. Children can be included in making the fake snow easily too. Encourage them to measure out ingredients using a weighing scale to develop number skills or let them help add water to develop their gross motor skills and skills when pouring.

Explore the Ice

Ice is such a fantastic resource as it is wonderful for developing a scientific understanding of cause and effect. There are so many things that you can do with it too. You may wish to consider getting your child to put ice in different areas of the house to see which cube will melt the quickest; this can be extended even further for some children by encouraging them to predict which will melt first and even record their findings in ways which are meaningful to them. You can also ask your children to explore the effects of other materials on melting ice. Gather 2-3 trays of ice and ask your child what they think will melt the ice most quickly- salt or hot water? Then try it out! Can they think of any other materials that might melt the

ice more quickly? Will anything make the ice melt more slowly? Setting up sand timers around different trays and letting your child take photographs of the progress is a great way to support their understanding of recording results and will also help them to reflect on what has happened.

Unbelievable Blubber

This is one of our favourite winter science activities to do with children. Start off by thinking about animals that live in really chilly seas-polar bears, penguins and whales. Get your child



to consider if they would like to swim in icy waters like that, before getting them to quickly dip their hand into a bowl of ice water. Did they like that? Would they really like to live in that? Next you can talk about how we can't live in that kind of environment but other animals can because they have blubber-a thick layer of fat to keep them warm. Now comes the fun part! Cover your child's hand in fat or coconut oil, then pop a glove or sandwich bag over the top. If you don't have any fat or your child doesn't want their hand to be covered in it then you can easily replicate this by stuffing a sandwich bag with cotton wool and then getting your child to pop their hand in there.

The fat/cotton wool is going to act as our blubber! Get your child to dip their covered hand back into the ice water. Could they feel the cold as much?

Make the Ice Grow

This experiment is such a fun way to encourage awe and wonder with the ice. Pop a bottle of water into the freezer for about 2-3 hours until the water is icy cold but not quite frozen. Then take it out of the freezer very gently. Prepare a separate bowl of ice and then pour the cold water from the bottle over the top in a steady stream.

The ice in the bowl will start to grow! You can make this even more exciting by adding food colouring to the water. This activity is great for developing pouring skills as well as developing an understanding of ice and (hopefully!) a love of Science.

