

Having fun with ice!

Topic Theme: Dragons	Activity Title: Can You Help a Dragon? Melting Ice Experiment
Date: 25/6/2020	Organisation: Indoor or outdoor activity.
Learning Intention: Children explain why some things occur, and talk about changes.	
Key Questions: Do you think you can help the dragon to free his friends? How can we help to melt the ice to free the dragon's friends? What do you think you should do to the ice? What will happen to the ice when I put it ___? What will the ___ do to the ice? Why will the ice melt in the ___? How will the ice change? I wonder which one of the ideas you have said would help to melt the ice in the fastest time? Why do you think that is the fastest way to melt the ice? What can you see happening? Why do you think that is happening?	Key words to use: Dragon, king, queen, jester, castle, characters, friends. Ice, melt, water, change, wet. Fire, heat, hot, warm, sun, radiator. Experiment, ideas, suggestions. Fastest, longest, time, quickest.
What you need: Freezer, water, containers to freeze small objects in (such as plastic cups), stopwatch/timer, little toys eg king, queen, princess, dragon toy or similar.	
Adult Role: Before you begin this activity, you will need to freeze some little toys such as small world castle characters in ice. You could half fill children's plastic cups, place one character in each and stand them up in the freezer. Make sure each character is frozen in the same quantity of water to ensure a fair experiment. If you don't have castle theme toys, you can make up your own story to suit the characters you have! This guide uses castle toys but please adapt it to fit with the toys you are using. <ul style="list-style-type: none"> • Begin the activity by showing the children a dragon toy or the Dragon Picture from the pack provided and tell the children he is still a young dragon and he is very friendly. • Tell the children that the dragon really needs their help! Say he is not able to breathe fire yet, he is still learning, but someone has frozen the king, queen, princess etc from the castle he lives by, and he needs to help to free his friends. • Say that although he wants to rescue them by breathing fire and melting the ice, he can't! He needs some help to think of other ways he could help to melt the ice and free his friends. • Show the children the frozen king, queen, princess etc and ask if they will help the dragon to free his friends. • Say that in order to free the dragon's friends from the ice, we are going to need to think of ways to melt the ice and get them out. 	

- Provide time for the children to think of ideas of how to melt the ice, and then ask the children to share their ideas.
- You may like to note the children's ideas down to refer back to throughout the experiment.
- As the children provide you with their ideas, ask them questions to encourage them to explain why things occur and to talk about changes.
- For example, if they said 'Put them in the sun,' you may like to ask them, 'Why do you think I should put the ice in the sun? What will happen to the ice when I put it in the sun? What will the sun do to the ice? Why will the ice melt in the sun? How will the ice change?'
- Once each of the children has fed back their ideas, say that the dragon needs us to help to free his friends as quickly as possible. Say, I wonder which of the ideas would help to melt the ice in the fastest time?
- As the children give their opinions about how to melt the ice the fastest, ask them why they think that way will be the fastest way of melting the ice.
- Tell the children they now have the chance to carry out a melting experiment. They can choose four different ways to try and melt each of the frozen castle characters and they can use a timer to see which one melts the fastest and which takes the longest.
- Decide four reasonable ways to melt the ice characters. For example, you could put them in warm water, in a bowl in the kitchen, under a box, in the sunshine, wrapped in a blanket, etc.
- Help the children to record the time it takes for the ice to melt and for the character to be freed, and record the times.
- As the ice is melting, encourage the children to discuss what changes they can see happening and ask them to explain why it is happening.
- At the end of the experiment, discuss the results you found and ask the children why they think, for example, putting the ice in hot water, helped to melt it the fastest?
- Praise the children for helping the dragon to free his friends and for carrying out a super melting experiment!

Making it easier/harder:

- To make the experiment simpler you could just have two frozen characters and place them in two different places to observe which melts quickest.
- You could alter your questioning and ask simpler questions based more on the children's observations, such as, 'What can you see happening?', rather than questions which require the children to provide explanations.
- You could challenge the children by altering the start of the activity, instead of telling them the dragon wants to melt the ice, you could ask the children if they can think of any ways to free the characters from the ice.

Ideas for follow up

You may like to add the step-by-step photograph instructions and craft resources from this [Fire-Breathing Dragon Craft Instructions](#) . Your children could create their very own fire-breathing dragon!