

**Dear Dad:**

One of the most incredible compounds on earth is water. There are many great science experiments you can do with your child that involve water and ice. All of these experiments teach young children about chemical reactions, mixtures and how even though ice is frozen water, it behaves differently than water does. The following activities require few materials and little preparation:



### **Floating Water?**

Add a few ice cubes to a glass of water. The ice cubes will float. Talk with your child about what they notice when they add the ice to the water.

### **Which Takes Up more space? Ice or Water?**

Fill a clear plastic or paper cup half-way full of with water. Mark the water line with a marker. Add an ice cube and mark the new water line. Wait for the ice to melt. Did the water line change at all?

Fill a small plastic bag with water (don't make it too full or it may pop). Using a piece of string, measure the how big around the bag is. Make a mark on the string with a marker. Put the bag into your freezer and wait for it to completely freeze. Re-measure the frozen bag. The bag should be slightly bigger.

### **How Long Does Ice Take To Melt?**

Put an ice cube into a few different paper cups. Put the paper cups in various locations around your house. Some examples include: outside, in the sun, in the shade, in the car, in the snow, in a cupboard, in a bathroom and in a refrigerator. Note what time you placed the cup in the location (Making a chart or list works well to keep track). Keep checking with your child until all the ice is melted in the cup. Record the time to find the one that melts the fastest.

### **Fun with Food Colouring and Ice: Making Mixtures**

Add a few drops of various food colouring to water in an ice cube tray. You should have at least two different colours of ice cubes—the more the better. Let the ice tray freeze and take out the coloured ice cubes. Combine different colours of ice cubes to different cups. Watch the ice cubes melt and the colours combine. See how many different colours you and your child can make with ice!

**Sincerely,**