






Fruit Clouds & Foggy Drinks

 **Time**
5 mins per demo




WHAT YOU'LL NEED

(Provided in Primary Science Pack)

-  Ice Cage & Loader
-  Drinks Pitcher
-  Dry Ice

 **Always replace lid on dry ice box immediately after**

You will also need:

-  Cups for the children
-  Fruit Cordial concentrate
-  Drinking Water

BACKGROUND

This demonstration is also a reward as the class can have a small foggy drink so you may want to do this at the end of the class having completed other demonstrations first.

TEACHER'S NOTES

Using the equipment supplied and following these instructions means that the demonstration is very safe – as always please read the safety Information on dry ice provided with these downloads and available from www.chillistick.com

This jug is only used for drinks and food-grade dry ice and so is not contaminated. Please follow your procedures for food utensils, this may mean storing the pitcher in the kitchen and not the lab, or using your jugs from the kitchen.

The fog is slightly heavier than air and so when you pour the drink from the pitcher the fog pours out much like the liquid - hopefully each cup will hold a little fog along with the drink. The fog consists of carbon dioxide gas (the gas that makes soda drinks fizzy), air, and tiny droplets of the drink, it is safe to breathe and enjoy when used in this way.

What To Do

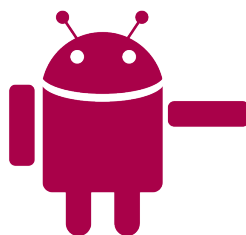
1. The Chillistick Primary Pack comes with a jug and Ice Cage. The Ice Cage is designed to hold a small amount of dry ice so the user can have the benefits without coming in direct contact with dry ice.
2. Please ensure the Jug and Ice cage are freshly washed.
3. Place the funnel into the safety valve of the ice cage and scoop dry ice into the cage using the funnel until half full.



4. Remove the funnel from the ice cage.



5. Make a jug of your chosen drink and drop the ice cage into the jug.



6. A decent fog will be generated which will carry the aroma of the drink – ask the children to smell. You can then pour from the jug into your cups whilst the fog is still being made.

What's Happening?

The dry ice contained in the Ice Cage and drink mixture create a fog of tiny droplets of the drink. This is why the aroma of the drink is easy to detect – you have created a fruit-flavoured cloud! The dry ice converts from a solid directly to a gas and this is the only way it can leave the Ice Cage.

Make this an experiment

To turn this demonstration into a true experiment ask the junior scientists to answer these questions:

- Will the drink turn fizzy?
- Why can we smell the drink?
- When the drink is poured the fog pours downwards – why?

