

Station #1 – Making a Rainbow

Pink
Red
Orange
Yellow
Green
Blue
Purple

Examine all of the liquids at the station. (Safety Note: Don't eat any of the liquids!) Your mission is to sort the liquids based on their density to create an accurate rainbow!

Your team will color the lightest liquid pink, and the heaviest liquid purple.

BONUS: On the graphic to the left, estimate where your 'extra items' will land.

When your team has colored each liquid, starting with your heaviest liquid, slowly pour each layer into your team's container. Make sure to pour the liquid directly into the center (don't let it touch the sides).

Once all liquids are in, drop your 'extra items' in the middle.

While your team is waiting for the layers to separate out, you may look at the answers!

Station #2 – Cloud in a Jar

Clouds form when water vapor joins together and condenses around particles in the air. We're going to re-do that inside of a jar!

To create your water vapor, take the hot water and swirl it around the inside of your jar, getting everything warm. This should take about 30 seconds.

Put the lid upside down on top of your jar and pile ice on top! Let it sit for about 30 seconds.

Quickly open the lid, and give it a few good sprays of hairspray. Put the lid back on and watch the cloud form! You can move the lid off and watch your cloud escape into the room!

Question: Why was hairspray necessary for this experiment?

Station #3 - Balloon Bonanza

Place a thumb tack, pointy side up, on the table. Gently tap a balloon to it. What do you think is going to happen? _____

This time, make a square of 25 thumb tacks, pointy side up. Gently tap a balloon to it. What do you think is going to happen? _____

Why is this? _____

Take a bamboo skewer, and gently coat it with soap. Run it through the bottom and then the top of the balloon where the color is slightly darker. What do you think is going to happen? _____

What actually happened? _____

Take an un-inflated balloon and blow it up, but don't tie it off. 'Stand' the balloon up on the table (with the end you blew into on the table). Let go. What happened? Why? What field of study relies on this principle?

Station #4 - Smoke Rings

Take a water bottle, and cut off the bottom. Cut the narrow part off of a balloon, and wrap the balloon around the open end of the bottle.

Light your incense stick, let it catch on fire, and then blow it out. Let it smoke inside of your water bottle contraption until it is full of smoke. Safety note: Don't let your incense stick touch the edge of the bottle!

Remove incense stick and dip in water cup to entirely extinguish.

Tap on the balloon end of your bottle, and smoke rings will blow out of the opposite end!

Using your knowledge of air currents, can you change directions of a smoke ring?

Can you shoot a second ring through a first ring?

Station #5 – Stuck with the Stick!

Get to know your team! Everyone pull a popsicle stick out of cup #1! If you pull the stick with the #1 on it, you have to answer question #1 below ☺. Keep going through cup #6.

Question 1 – How many ISEA conferences have you been to? Which was your favorite?

Question 2 – How many years have you been in the Informal Science world?

Question 3 – What's your favorite part of your job?

Question 4 – What was the last book you read? It doesn't have to be work related.

Question 5 – Do you have a really fun science word you love teaching others about? (Insectivorous is my favorite!)

Question 6 – What is something you can do really well?