



Dancing Hearts

STEAM Train Experiment Instructions

PREPARE

Location: Room E133

Materials:

- Balloon
- Tissue Paper Hearts
- Box the hearts are taped to
- Bag of small pieces of paper
- Paper plate

1. Blow up the balloon and tie (small is fine)
2. Take 3 paper hearts and tape them to cardboard box (if the hearts that are already there are not damaged, feel free to use them)
3. Take the bag of small paper items and place on the paper plate
4. Set all materials on the top shelf of the cart before pushing the cart to the classroom.

Location: Classroom

1. Position the cart in front of the kids so that they all have a view of the top shelf.

PRESENT THE EXPERIMENT

1. Show the kids the hearts. Ask them if they think you can make these paper hearts dance with a balloon
2. Move the balloon over the paper hearts. Watch nothing happens. Tell them that you have to create "electricity" to get them to move
3. Rub the balloon over your head or your shirt for 30 seconds. Count with the kids, it makes it more fun. (Hair works the best)
4. Use the part of the balloon that you rubbed and wave it over the paper hearts. The tops should lift up (the tape keeps them down). Move all over and make the paper hearts "Dance" by moving over different paper hearts all over.. If you need to- rub your hair/shirt again.
5. Say: "Everyone is made up of small particles called atoms. Atoms contain electrons that are negative and protons that are positive. Like a battery. When you rub the balloon on your head, the balloon pulls

electrons from your hair making the balloon negative. The negatively charged balloon attracts positively charged objects.

6. Now show the kids the paper plate full of the small pieces
7. Tell the kids we are going to decorate the balloon by using static electricity and not glue
8. Rub the balloon again for 15-30 seconds on your hair
9. Wave it over the paper plates and see the small paper stick to the balloon
10. Show the kids the decorated balloon

EXTENSION Discussion

1. So what exactly is static electricity?
 - Build up of electrical charges
2. Have you ever had your hair stick up after sliding down a slide?
3. The movement of going down the slide causes the static electricity.
4. Show photos of kids going down slides