

5. Dancing Balls (You need styrofoam balls, aluminum foil, plexi-glass, cloth, and an area to keep the balls from escaping. This trick is really impressive but can be a bit difficult to recreate. When the plexi-glass plate is charged and placed over the balls, they all jump up and stick to the bottom of the glass. For a few moments they travel around periodically until they finally settle. But when you put your finger near the glass, they all start jumping around. It's also fun to use these balls with styrofoam plates / cups. If you place the ball on a charged plate, it will shoot off of the plate, or stick to it, even if the plate is held sideways or upside down. / Lesson Planner / LearningCorner.co

**Objective**  
By the end of this lesson, you will understand the concept of static electricity and how it can make objects move and stick together in a fun and exciting way.

## Materials and Prep

Materials needed: styrofoam balls, aluminum foil, plexi-glass, cloth, and an area to keep the balls from escaping.

Make sure to have a safe and clear space to conduct the activities where the balls won't roll away.

## Activities

- **Activity 1: Dancing Balls**

Create the setup with the plexi-glass plate and styrofoam balls. Experiment with charging the plate and observing how the balls react. Try different surfaces and see how the balls move and stick.

- **Activity 2: Styrofoam Plates/Cups**

Place the balls on charged styrofoam plates or cups and observe how they interact. Try holding the plates sideways or upside down to see how the balls behave.

## Talking Points

- **What is static electricity?**

"Static electricity is a kind of electricity that stays in one place and doesn't flow like the electricity in our lights. It can make things move and stick together."

- **How does static electricity make the balls move?**

"When we charge the plexi-glass plate, it creates an invisible force that attracts the styrofoam balls. That's why they jump up and stick to the glass."

- **Why do the balls start jumping around when you put your finger near the glass?**

"Your finger can carry some of the static electricity and disrupt the balance, making the balls move around. It's like a little dance party for the balls!"

- **What happens when you place the balls on a charged plate?**

"The balls can either shoot off the plate or stick to it because of the static electricity. It's like magic how they can move without you touching them!"