**Balloon Activities**

Learn the science behind balloons with some fun balloon activities for kids. Children will enjoy learning about air pressure and how it relates to balloons as you demonstrate interesting concepts with the help of this free lesson plan.

**Introduction:**

* What do we use to blow up balloons? Gas (we can use different types of gas to blow up balloons). The gas takes up space inside the balloon, forcing it to expand. Air pressure can be a strong a force.
* How many helium balloons do you think it would take to raise an average sized adult off the ground?
* Some fun ways of illustrating air pressure are by popping an inflated balloon with a pin or untying it and letting it fly around the classroom.
* Where have you seen balloons used? Birthday parties, festivals, weddings etc. Balloons can be easily purchased at stores nearly everywhere around the world.
* What are some fun things we can do with balloons? Let’s blow some up and find out!

**Demonstration:**

Let’s use air pressure to do a cool trick with a balloon. Get a student to draw a funny looking face on the surface of a balloon. Make sure they draw a face without ears. After telling the students that the face looks great but it will need some ears, get a volunteer to press two plastic cups firmly onto either side of the balloon where the ears should be (you will need to let some air out of the balloon before doing this. Blow the balloon up again while the volunteer holds the balloons in place. When the balloon is big enough your volunteer can let go of the cups, they should now stick to the balloon by themselves!

How is this happening?

When the balloon is smaller, quite a lot of its surface fits into the side of the cup. When the balloon is larger, less surface area can fit into the cup as far as it did before. While you have gone from a small balloon to a large balloon no air has got into the cup. The same amount of air is still in there, only it now has a bigger space to occupy. As a result, the air inside the cup has dropped to a pressure that is lower than the air on the outside of the cup (which stays at the same pressure). Air always moves from areas of high pressure to areas of low pressure. Because the area on the outside of the cup is the same as it was before, it has a relatively higher pressure than the air inside the cup. The high pressure air outside the cup tries to get to the low pressure air inside and cup and pushes the cup onto the side of the balloon, holding it in place.

**Easy Activity:**

Use a balloon to show static electricity in action.

* Blow up a balloon and tie the end.
* Try picking up some small pieces of paper with the balloon. Can you do it?
* Now try rubbing the balloon on your clothes, hair or on the carpet.
* Try picking up the small pieces of paper again, does it work now?
* Will the balloon stick to a wall? What does it do when you put it next to your hair to your hair?  What else can you find that the will balloon stick to? Why is this happening?