

Wind Tunnel Exploration

Exploring with wind and air is both fun and exciting for young children, partly because wind is everywhere around them in their daily lives. Children learn that air and wind aren't visible, but their effects are!

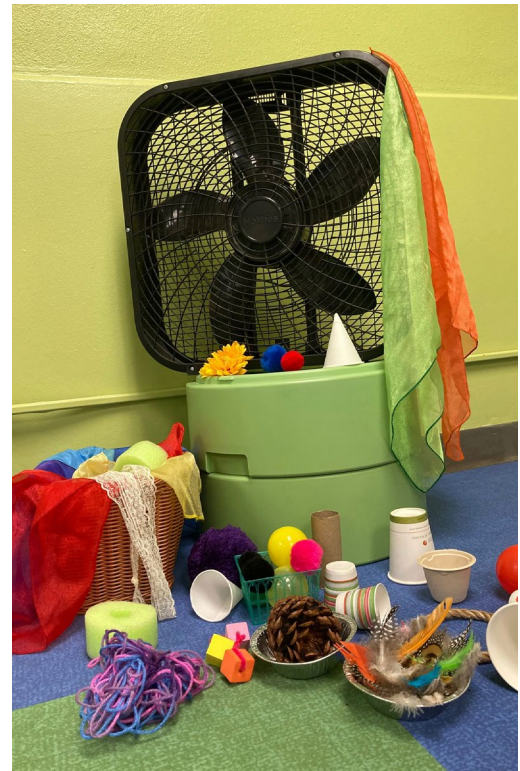
Try It

1. Present children with pre-sorted bins of various materials such as balloons, beach balls, scarves, stuffed animals, bean bags, parachutes, tissues, different weight fabrics, etc. The bins can be labeled or unlabeled. If marked, the labels might be heavy, light, fast, slow, float, etc.
2. Use a wind tunnel if you have one or set up some electric fans around the space. You can also have the children make hand fans or give them straws to blow through to move the various objects. Whatever wind source you use, ask the children to try to move the object with the wind.
3. When a child picks up an object, have them predict and observe:
 - What will it do?
 - Will it move, roll, fly, or float in the air?
 - What goes the highest?
 - Which goes the farthest?
4. They can then test the objects and see if the original labels were accurate.
5. Ask: Can we find a way to make something that is heavy fly or move in the wind? Have them tinker with attaching a parachute to a heavier object.
6. You can also attach streamers to a fan to explore how things move. Ask the children how it's the same or different and to describe what they see.



TINY TIP!

You can DIY your own wind tunnel with an appliance-sized cardboard box and a box fan. We also built a ramp coming out of it, so children could experiment with how their objects would move on different textures or surfaces.



Learning Opportunities

By exploring which objects move in the wind and which don't, children come to understand the impact wind can have on the objects around them. Beneath the surface of



the play are concepts of science and mathematics, like speed, force, measurements, weight, and scale. Intentional play coupled with open-ended questions and use of specific words lays the foundation for this knowledge-building.

Open-Ended Questions

- How does the wind move things?
- Why do some things float and others don't?
- How can we make something that is stationary move in the wind?
- If the wind direction or force changes, how does it change the object being moved?

WORDS AND CONCEPTS TO EMPHASIZE

- Air pressure
- Force
- Speed
- Surface
- Scale measurement
- Farther
- Shorter
- Faster
- Slower
- Higher
- Heavy
- Light