LIFT-OFF SCIENCE NIGHT

OUTREACH PRE-VISIT PAGE ALL AGES

Arizona Science Center will be arriving an hour before the start of your **Lift-Off Science Night. Lift-Off Science Night** is intended to be a great addition to your own school's science night, rather than the main event. Arizona Science Center staff will be bringing boxes that contain activities focusing on physics and movement. Activities include:

Air Pressure and Bernoulli: Includes two activities: Bernoulli Basketball and Bernoulli's Balancing Act. Bernoulli Basketball is the physics version of basketball, using balancing ping-pong balls and hairdryers to score! Bernoulli's Balancing Act uses those same principles to balance a ping-pong ball mid-air with just a straw and your own breath.

Balloon Rockets: Using balloons attached to straws, make rockets and compete with family and friends to see whose can go the fastest!

Gyroscope: Attendees create their very own gyroscope to see how long they can keep an object spinning.

Helicopters: Make your very own paper helicopter and discover how it works as it flies through the air and spins to floor.

Hovercrafts: Get a taste of what it would be like to fly away on a perpetual motion machine and then build your very own miniature hovercraft. Watch as it flies across the table without friction to stop it!

PROGRAM NEEDS

- Six tables; one for each station
- Large open area (at least 25 ft. by 25 ft.)
- Six or more adult volunteers; at least one to facilitate each station
- Easy access to multiple electrical outlets

SCIENCE STANDARDS

Grade 5: S5C2PO1: Describe the following forces: gravity and friction
S5C2PO2: Describe the various effects forces can have on an object (e.g., cause motion, halt motion, change direction of motion, cause deformation).
S5C2PO4: Demonstrate effects of variables on an object's motion (e.g., incline angle, friction, applied forces).

Grade 8: S5C2PO2: Identify the conditions under which an object will continue in its state of motion (Newton's First Law of Motion).