Go With the Flow

Pre-field trip preparation suggestions

Terry Lee Wells Nevada Discovery Museum

Go With the Flow is a Discovery Lab in which students complete a variety of hands on experiments to help them learn that air is made up of molecules. They will explore aerodynamics and at the end of the class use their knowledge of air to design and test a flying object in our wind tunnel.

During your Discovery Lab students will be expected to:

- Sit in groups of four and work cooperatively with others at the table.
- Students should be prepared to give their full attention to the Lab instructors when given the quiet signal.
- Follow the hands-on procedures just as the Lab teacher or assistant explains them and handle materials and equipment carefully.

It is important that teachers and chaperones:

- Help focus the students' attention.
- A Assist students with lab activities through questioning allowing the student to do the actual building and decision making. For example a parent might ask, "I see your base is shaky, what could you do to strengthen it?"
- Engage students at a higher level by asking open-ended questions throughout the class. For example: why did you choose _____?
- Turn off cell phones and other electronic devices during the class.

Literary connection:

To get students excited about the upcoming Discovery Lab we suggest reading the following story with your students: *Engineering the ABC's: How Engineers Shape Our World* by Patty O'Brien Novak. Engineering the ABC's answers questions about how everyday things work and how engineering relates to so many parts of a child's daily life. In an entertaining and engaging way, this book shows how engineers shape our world.

Next Generation Science Standards (NGSS):
5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen. Conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.