

Discovery Lab Description:

Have you ever tried to do a job and not have the right tool? In this hands on lab students will move through seven stations that will teach them how to use a variety of hand tools including screwdrivers, drills, and saws! Students will then explore how many of these tools are simple machines that allow us to do work which is the foundational understanding for motion and stability and the interaction of forces state and national standards.

During the Discovery Lab students will be expected to:

- Sit in groups of 4 students per table.
- Work cooperatively with one another at the table.
- Follow the hands-on procedures just as the Lab teacher or assistant explains them.
- Handle materials and equipment carefully.
- Wear Safety glasses at all times when tools are in use.

It is important that teachers and chaperones:

- Help focus the students' attention.
- Assist students with lab activities through questioning, allowing the student to do the actual data collection and decision making. For example a parent might ask, "How did the teacher say that you needed to position the drill?"
- 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 activity.

Literary connection:

To get students excited about the upcoming Discovery lesson, we suggest reading the following story with your students: *Tool School* by Joan Holub. Join a hammer, screwdriver, tape measure, saw, and pair of pliers on their first day of school. Together, they make puzzles and play games, but when it's time to build something it's suddenly every tool for itself. Working alone, each tool soon realizes that to make something great they all need to cooperate! We like this book because it has irresistible bold artwork and fun rhyming text so your students learn not only some tool basics but that a little teamwork can make a big difference.

Nevada Academic Content Standards in Science (NGSS):

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

