

Deseret Peak District  
February 2017  
STEM Activities/Nova and Supernova Awards  
Point of Scout Law: Loyal/Theme: Our National Treasure

Cindie Williams  
[cwilliams62@live.com](mailto:cwilliams62@live.com)  
435-849-6956

Melissa Wallace  
[lifeofsimpleness@yahoo.com](mailto:lifeofsimpleness@yahoo.com)  
435-496-0283

The Boy Scouts of America's Nova Awards program incorporates learning with cool activities for Cub Scouts, Boy Scouts, and Ventures. The hope is that the requirements and activities for earning these awards will stimulate interest in STEM-related fields and show how science, technology, engineering, and mathematics apply to everyday living and the world around us. Counselors and mentors help bring this engaging, contemporary, and fun program to life for youth members.

While many of the adventures support the STEM elements, Cub Scouts and Webelos Scouts also have the opportunity to work on the Nova and Supernova auxiliary awards. Each award covers some component of STEM.

There are seven (7) Nova Awards for Cub Scouts and Webelos Scouts:

- 1-2-3 GO!
- Down and Dirty
- Nova WILD
- Out of This World
- Science Everywhere
- Swing
- Tech Talk

For their first Nova Award, Scouts earn the distinctive Nova award patch. After that, a Scout can earn three more Nova Awards, each one recognized with a separate pi pin-on device that attaches to the patch. The patch and the three devices represent each of the four STEM topics: Science, Technology, Engineering, and Mathematics. The Supernova awards have more rigorous requirements than the Nova awards. They are more advanced and in-depth.

These awards offer opportunities for volunteers. Nova Counselors can be any registered adult age 21 years or older. They must be registered under the "non-unit" position and no fee is required. Supernova mentors must be 21 or older and be subject matter experts in a STEM field. Mentors must complete Youth Protection and also complete the Supernova Awards Mentor Information application. The requirements may be completed with a parent or an adult leader as the counselor.

Nova and Supernova requirements may be found at: <http://www.scouting.org/stem.aspx>

## **Pool Noodle Launching Station for Paper Airplanes**

Materials Needed:

- Nine pool noodles (Any size can be used, however all nine should be the same size. Use different colored noodles for the rings and the posts, if you like.)
- Duct tape
- Wooden or garden stakes

Instructions:

- Take six of the pool noodles and tape the ends of each one together to form six individual rings.
- Tape the rings together side by side and on top of one another. To provide stability, make sure to tape over the seams you created when making the individual rings.
- Tape two of the remaining noodles to the ring outsides.
- Cut the last noodle exactly in half, and use the two halves to make the posts.
- Drive the two stakes into the ground, and push the two posts onto the stakes to complete the launching station.

## **Homemade Musical Instruments Bottle Organ**

Materials Needed

- \* Five matching plastic soft drink bottles
- \* Water

Instructions:

Fill the bottles with different amounts of water. Blow across the top of each one to make sounds. You may have to practice a few times to learn how to produce a nice tone. Try to play a song on your bottle organ.

## **Shoe-Box Guitar**

Materials:

- \* Sturdy shoe box
- \* 8–10 rubber bands of varying widths
- \* Pencil

Instructions:

Cut a circular hole in the lid of the shoe box. Wrap the rubber bands around the box, with thicker ones at one end and thinner ones at the other end. Insert the pencil underneath all the rubber bands, perpendicular to the box and similar to the bridge on a guitar. Pluck the rubber bands with your fingers to make sounds.