

Astronaut Helmet

Sewing Activity



For Grades K - 2

ABOUT THIS ACTIVITY

This hands-on activity is designed to engage your students in thinking about how things are made and what skills are needed in various STEM fields. This is not a STEM challenge, but we recommend you follow this activity with an engineering design challenge like the suggested Astronaut Boot Challenge indicated below.

In this activity, students are provided materials to “sew” their own astronaut helmet mask.

1. **PRINT** the following page and gather the supplies needed below. If your students are more advanced, you may choose to let them help with cutting out the helmets.
2. **READ** a book about astronauts. We recommend reading [The Spacesuit: How a Seamstress Helped Put Man on the Moon](#) and discussing what skills, like sewing, are useful in STEM fields.
3. Follow this activity with an engineering design challenge like the Astronaut Boot Challenge.

Materials Needed:

- Cardstock
- Plastic sheet (empty lamination pouches work well)
- Kitchen twine
- Coloring supplies (optional)



Astronaut Boot STEM Challenge



For Grades K-5

Including Optional
Storylines for:

Mission to
the Moon

Mission to
Mars

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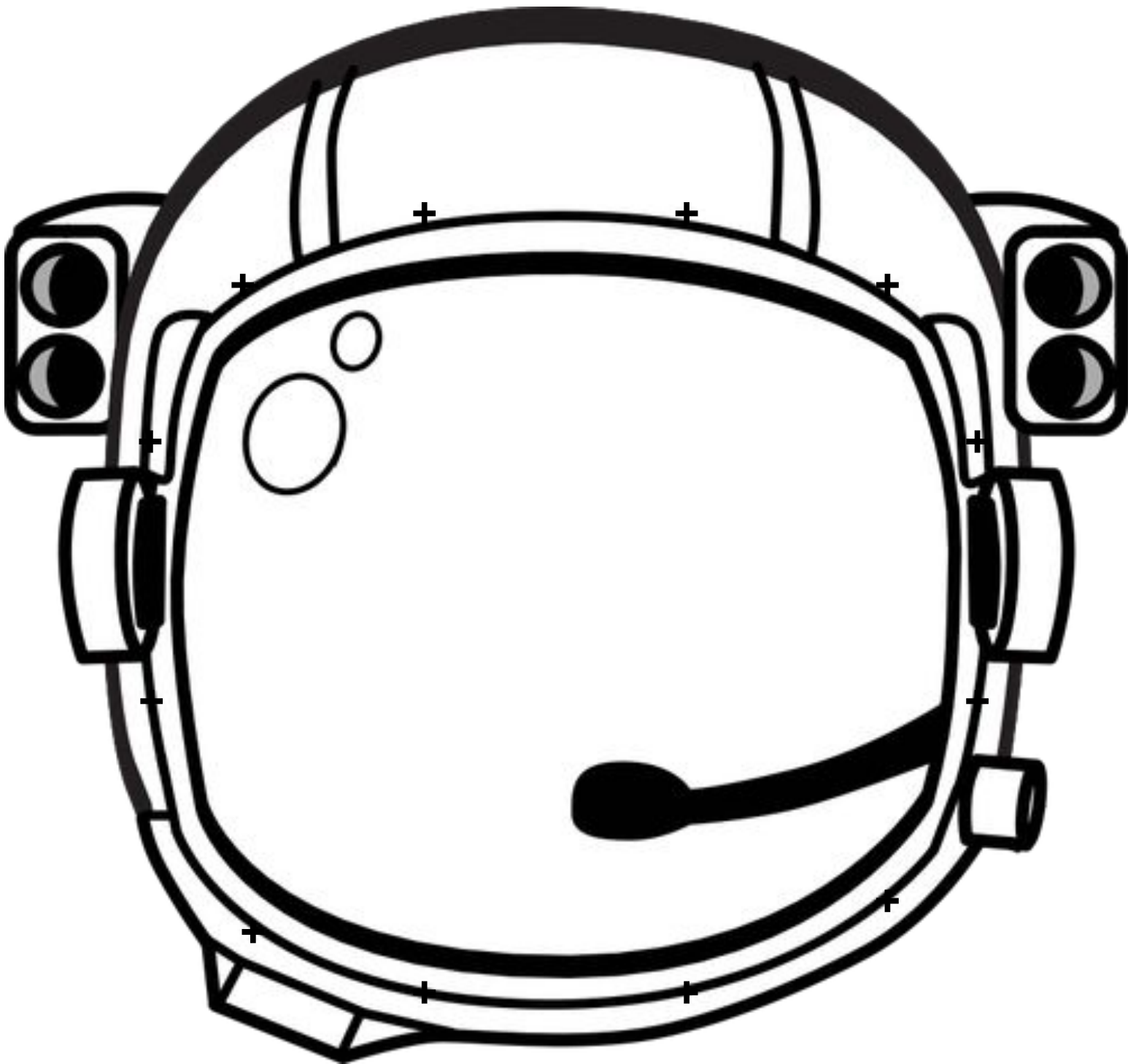
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STEM EDUCATION

[Astronaut Boot Challenge](#)

Students use the engineering design process to create a boot for an astronaut landing on either the Moon or Mars. Additional handouts include 1) Astronaut STEM Career Highlights and 2) Science behind Astronaut Space Suits.

Find the activity [here](#).



Instructions:

1. Print on cardstock.
2. Cut out inside visor and hole punch where indicated by 12 “+”.
3. Cut out visor out of plastic or lamination pouch that is laminated without anything inside by tracing the helmet on the plastic.
4. Punch holes in the plastic to line up with the helmet.
5. Provide students with kitchen twine to lace the visor onto the helmet.

WANT MORE STEM?

For a complete list of all of Vivify STEM resources broken down by standards, topics, and grade levels, go here: <http://bit.ly/VivifyResourceGuide>



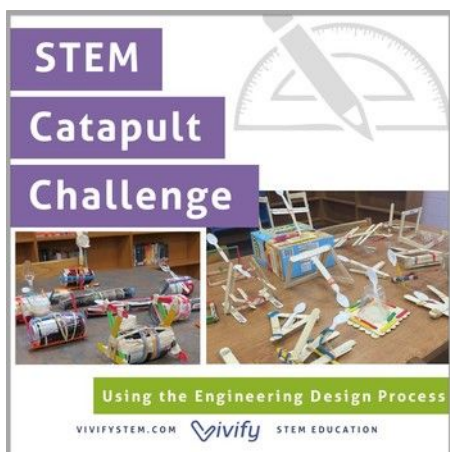
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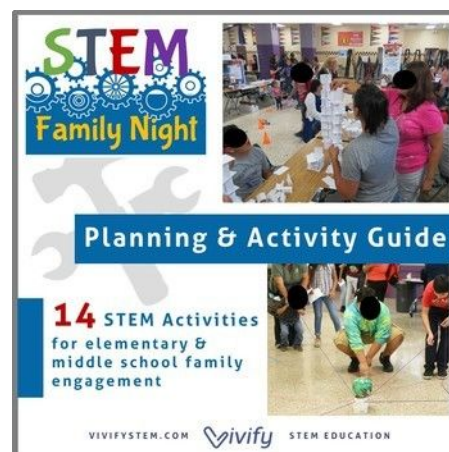
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Vivify's Overview of STEM Education

Successful STEM education is an empowering interdisciplinary approach that brings math and science concepts to life through problems that mimic the complexities and excitement of the real world. STEM revolves around the Engineering Design Process that embraces failure, relies on teamwork, and requires critical thinking and creativity. While exciting, educators often become intimidated as a search for curriculum leads to an overwhelming range of activities from index towers to robotics competitions. At Vivify, we believe that not all STEM is created equal. Educators should adopt a [3 Stages of STEM](#) approach by progressively building towards more complex projects.

To learn more about the 3 Stages of STEM, go here: <http://bit.ly/stemstages>