

Topic: Paper CubeSat

Presenter(s): Amy McClure

Date: August 24, 2018

Lesson Timeframe: 3 hours

STEM Takes Flight Workshop Resources Used:

Materials:

Paper Sat Templates copied

scissors

hand held hole punch

tape

Glue sticks

styrofoam or foam (or other material that would work for a launch pad)

pipe cleaners

straws

coffee stirrers

zip ties

post it notes

Teacher level: I highly recommend going through this activity with your coworkers prior to doing this with students.

Student level: Intro to CubeSat I used the following prezi that you may copy and edit

<https://tinyurl.com/yak3fvl7>

This prezi gives students an intro to cubesats, the importance of teamwork

Learning styles/intelligences supported:

Overview of the lesson:

All of the students at our school work together in a group of 3 –4 students over the course of two years on an in-depth research project. The goal of this lesson was to prepare students to work in groups and to learn how to work together as a team. 12 students were assigned to each group for a total of 15 groups. The students are high school juniors and seniors and do not know each other at all prior to this activity.

Lesson Objectives:

Students will learn how to work together as a team.

Lesson Content (*Warm-up activities/review; Instructions; Follow-up activities*):

Warm Up Activity: Scavenger Hunt around the school (40 minutes)

Intro to CubeSat Prezi (15 min)

Building the paper CubeSat (2 hours)

Introduction of opportunities available at NASA for high school students

Assessment :

Students will write a journal reflecting their total experience of building the CubeSat. What was hard? How did you overcome it? Did you like the standup meetings? Do you think the standup meetings are important and why? What skills do you need more help on so that you can be an asset to your team?

Approximately how many students do you anticipate this activity impacted?

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Additional comments: