

Marsbound

I use the Marsbound activity for students to work with the design process. The longer I teach, the more I believe that students need concrete experiences before I explain a concept to them. This is typically our first activity of the school year. Students get a feel for how to handle the activity in my classroom with simple materials that don't pose a health or safety hazard.

NOVA produced a movie, Mars Dead or Alive, several years ago. At one time, the video was found on the NOVA site. NOVA, unfortunately removed the video. DVD copies of the video can be purchased or a search of the web has produced a few sites that have the video. They are:

<http://www.hulu.com/watch/23355/nova-mars-dead-or-alive>

<http://www.youtube.com/watch?v=bi4nMJvOeAo>

The videos are full length, but I only use a 7 to 8 minute piece of the video at a time. I show the video until the first break in class (It is how I start my class) and then students do the first lesson of the Marsbound Activity. The next day, we go over the first lesson, watch the second piece of the video, and then do the second activity. We continue this process until the students have completed all activities and watched all pieces of the video.

The final assessment is for students to write a report advocating their mission idea to NASA. I have the students divvy up the report and each student in the group is responsible for at least one paragraph. Once that is completed and turned in, I have students watch, what is the Design Process, which is found on http://www.teachersdomain.org/asset/phy03_vid_desprocess/. The short clip provides students with an overview of the steps to the design process. The students, individually, write a reflection paper that links the steps and activities we did as Marsbound to the steps to the Design process.

Also, for fun, we watch the animation clip, <http://www.maasdigital.com/gallery.html>. The animation is fairly well done. I was told by scientists that the only truly glaring mistake was that the rovers move very slowly.