

Have students please watch the video listed here and complete the worksheet.

Please collect and let students know I will be grading it.

<https://youtu.be/v5FL9VTBZzQ>

Name _____

Creative Constraints TED ed

What was the name of the first lander on Mars?

- A Voyager
- B Viking
- C Curiosity
- D Cassini

Scientists and engineers aren't the only people who face creative constraints. Discuss some of the constraints faced by professionals in other fields.

What constraints were NASA trying to address by using airbags and the Skycrane for the Pathfinder and Curiosity rover? Why not just use rockets to land on the surface of Mars?

Thinking about your daily routine. What is a creative solution you've used to solve a problem?

All of the following inventions were discovered accidentally EXCEPT:

- A Synthetic dye
- B Gunpowder
- C Rocket fuel
- D Plastic

What was the device used to lower the Curiosity rover?

- A Skycrane
- B Claw machine
- C Airbags
- D Parachute

Alexander Fleming is famous for mistakenly discovering which of the following?

- A Bacteria
- B Fungus
- C Viruses
- D Penicillin

Which NASA rover used airbag technology to land safely on Mars?

- A Voyager
- B Viking
- C Curiosity
- D Pathfinder

Let's think about your own life, what kind of problems do you think you could use creative solutions to solve?

How can we utilize this information our band class? What problems are we having and how can we use creative solutions to solve them?