

Engineering Adventures[®]



Engineering Journal In Good Hands: Engineering Space Gloves

Name: _____



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from: engineeringadventures@mos.org
to: You
subject: Engineering a Tower



10:36 AM

Hi everyone,

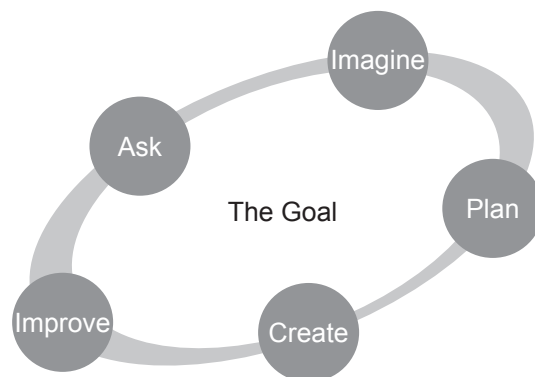
We're so excited to meet you! Our names are India and Jacob. We do a lot of traveling all over the world. We meet interesting people and see some amazing countries. Each place is unique, but we've found one thing in common. Everywhere we go in the world, we find problems that can be solved by engineers.

Engineers are problem solvers. They're people who design things that make our lives better, easier, and more fun! We heard you might be able to help us engineer solutions to some of the problems we find. That means you'll be engineers, too!

Today, we came across an engineering challenge we think you can help us solve. We're spending time at NASA, the National Aeronautics and Space Administration. NASA is hoping to create a pedestal or tower to hold a sculpture of a very special astronaut. The team asked us to engineer a model of the tower. It needs to be at least 10 inches tall, and it has to hold a statue. Can you engineer a tower to help?

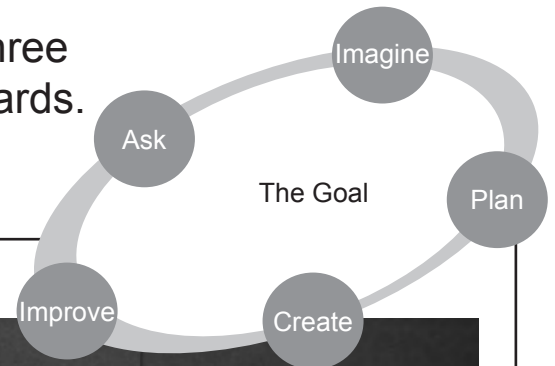
We sent you one tool that we usually find really helpful when we're trying to engineer a solution to a problem. It's called the Engineering Design Process. Take a look at it and see if it can help you!

Good luck!
India and Jacob

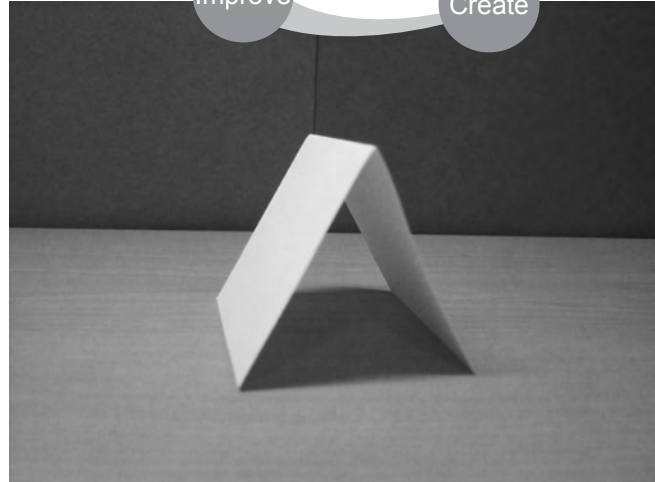




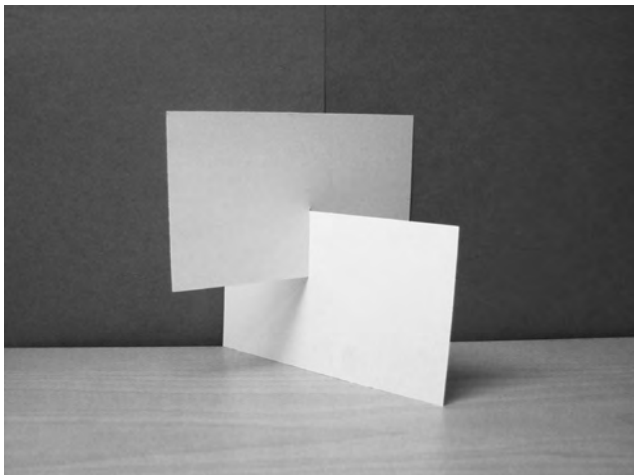
Imagine the structure of your tower. Here are three ways to build the tower's structure with index cards.



Roll it!



Fold it!



Cut it!

Will any of these ideas help your group build a tower? What other ideas do you have?

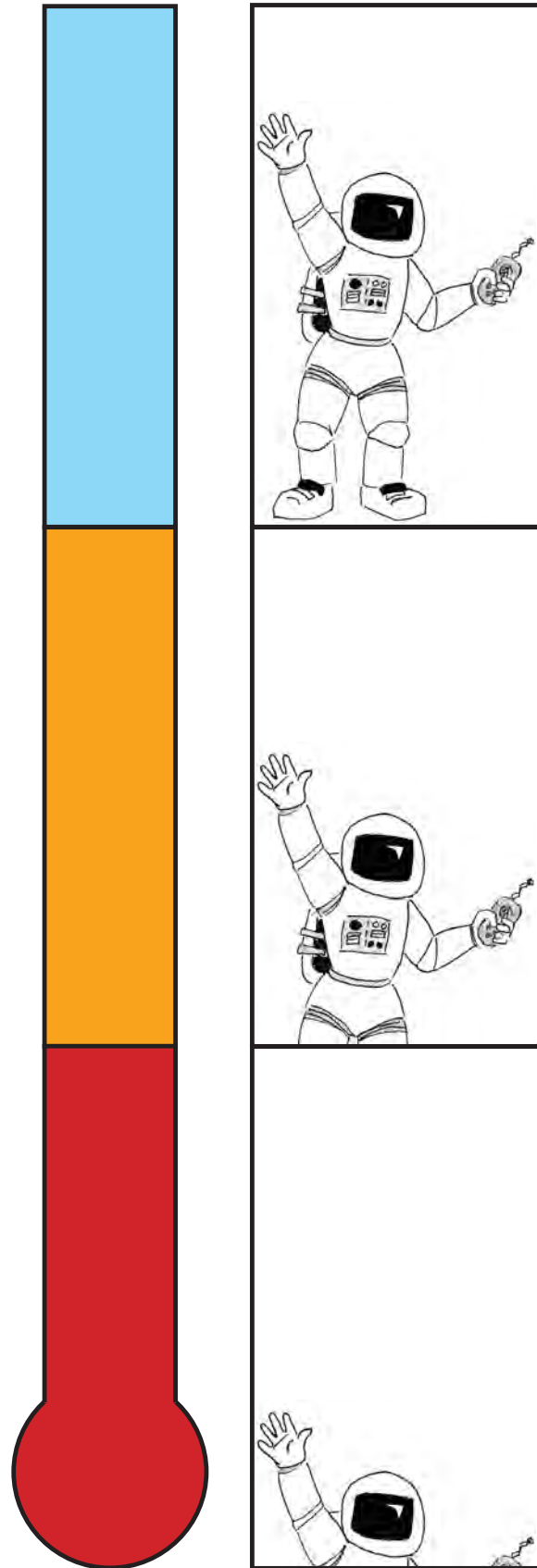
Talk with your group to figure it out!

The taller the tower you engineer, the more people will be able to see the astronaut statue.

**Lots of people
can see
10 inches and up**

**Some people
can see
5–9 inches**

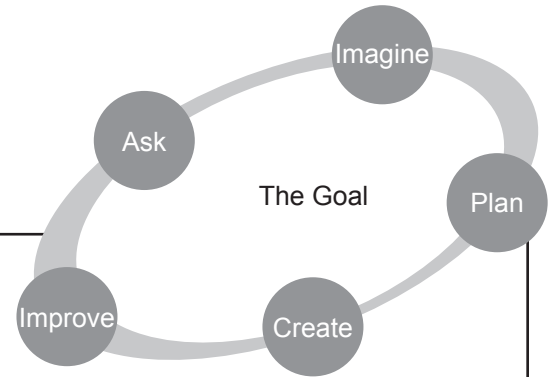
**Hardly anyone
can see
0–4 inches**





Plan Your Tower

Use the space below to draw your tower.



Reflect

Which parts of your tower design would you *improve* if you could do it again?

For the Record

I think engineering is:

- Fun
- Exciting
- Difficult
- _____