



**Are you looking for a creative project to work on this month?**

### **March At-Home Stem Project**

#### ***Counting on Katherine-How Katherine Johnson Saved Apollo 13***

**Read the book or watch an online reading of the book.**

**Research flight patterns and rockets.**

**Design Challenge: Design and create a rocket. Launch the rocket at different angles to see how the flight trajectory changes.**

**Complete the Engineering Design Process Sheet.**

**Add as many details as you can to your design sheet.**

**Build your design with household items or with a digital program.**

**Bring your project and design sheet to school any day this month.**

**Your project will be displayed in the Media Center.**

**We Can't Wait to See Your Projects!**



# What is the Design Process?

Ask		Imagine	
<ul style="list-style-type: none"><li>• Identify the problem</li><li>• Determine design constraints</li><li>• Consider relevant prior knowledge</li></ul>		<ul style="list-style-type: none"><li>• Brainstorm design ideas</li><li>• Draw and label those ideas</li></ul>	
Plan		Create	
<ul style="list-style-type: none"><li>• Pick one idea</li><li>• Draw and label the idea</li><li>• Identify needed materials or conditions</li></ul>		<ul style="list-style-type: none"><li>• Carry out the plan</li><li>• Create the design</li><li>• Test the design</li></ul>	
Improve			
<ul style="list-style-type: none"><li>• Reflect on testing results</li><li>• Plan for, create and test a new (improved) design</li></ul>			