

# **Engineering Journal Design a Space Capsule**



The Engineering Design Process



**Space Capsules** 



Apollo Capsule



Gemini Capsule



Space X Capsule

#### **Capsule Criteria**

Your space capsule must:

- Survive splashdown
- Float in water
- Be waterproof
- Include one additional feature of your choosing:
  - ☐ Has a parachute attached
  - ☐ Keeps itself right side up after landing
  - ☐ Carries up to 5 astronauts
  - ☐ Is compact (under 3 inches)
  - ☐ Opens easily to get astronauts out
  - ☐ Is reusable
  - ☐ Other: A criteria you identify:

My space capsule will:

## **Testing Procedure and Results**

Criteria	How I will test	Test results
Survives splashdown	Drop the capsule into a water-filled bucket, sink, or bathtub from a height of 5 feet. Check to see if the capsule broke apart or cracked.	
Floats in water	Use a timer to make sure the capsule floats on top of the water for at least one minute.	
Is waterproof	After one minute, open the capsule and check to make sure the astronauts are dry	
Additional criteria here:	Additional test here:	

## **Space Capsule Design Ideas**

Sketch 1	Sketch 2

#### **Space Capsule Plan**



Label the materials you will use.

Think about how many of each item you need.



Developed by: Christine M. Cunningham, Martha Davis, & Shannon McManus Engineering Design Process used with permission of Youth Engineering Solutions