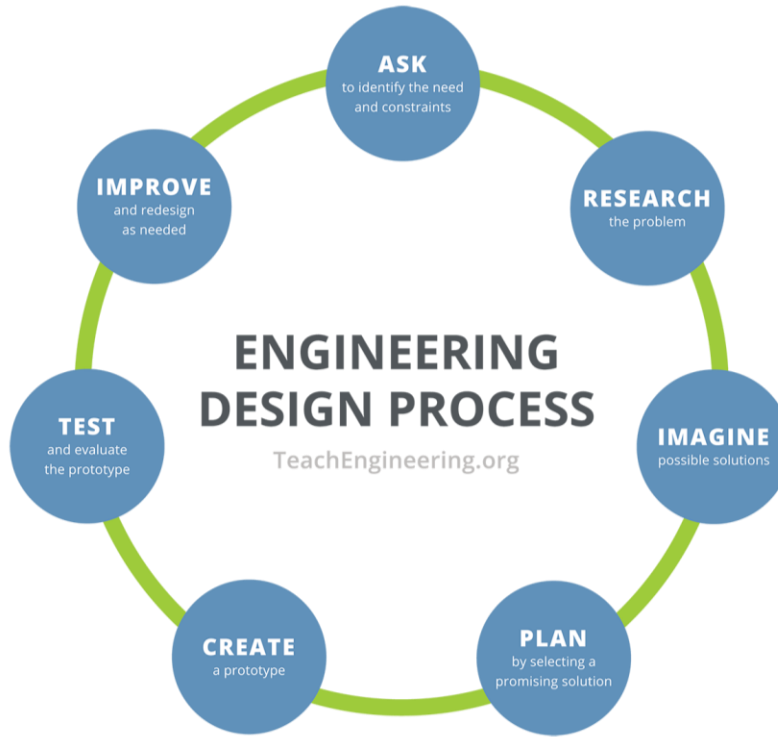


Name:

Date:

Class:

## Creative Crash Testing Worksheet



### Ask

1. In your own words, what problem are you trying to solve in this activity?
  
2. What are the constraints for this activity?



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## Imagine

3. Generate Ideas: What a Safe Vehicle Looks Like—Prototype Ideas

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## Plan

### Design Solution for Your Best Plan to Prototype and Test

Explain the design approach that you will prototype and test... (Example: We think cushion-type safety features are the best during a head-on collision. And we think that heavier cars better survive head-on collisions.)

### Initial Design Materials Used

Model Material	How many/How much	What it's being used for
Cotton fill		
Cardboard		
Tag board		
Felt		
Foam paper		
Craft sticks		
Chenille stems/pipe cleaners		
Balloons		
Rubber bands		
Plastic straws		

Name:

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Class:

## Plan

***Sketch your final design with materials identified.***

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Date:

Class:

Test

**Initial Testing & Analysis**

Car/Group #	Car Mass (grams)	Run Length (meters)	Run Time (seconds)	Testing Success (Y/N)	Car speed	Momentum ( $m \cdot v = p$ )
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Name:

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## Test

### ***Initial Results Summary***

Initial results: (List details of what happened to your vehicle during/after crash.)

What worked and what didn't work?

Name:

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Class:

Improve

*Redesign/Rebuild Materials Used*

Model Material	How many/How much	What it's being used for / Problem that is being fixed
Cotton fill		
Cardboard		
Tag board		
Felt		
Foam paper		
Craft sticks		
Chenille stems/pipe cleaners		
Balloons		
Rubber bands		
Plastic straws		



Name:

Date:

Class:

***Redesign Approach***

***To improve on our first design, we decided to...***

***Because...***



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***Redesign Results Summary***

**Final results:** (List details of what happened to your vehicle during/after crash.)

**What worked? What didn't work? Why?**

**Final conclusions:**