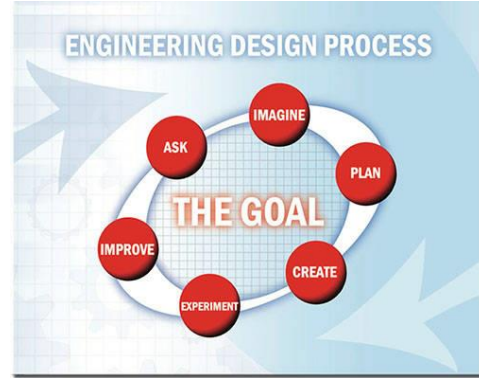


Engineering Design Challenge Worksheet



Team Name: _____

Ask: What questions do you have about today's design challenge? Include limitations, what resources are available. Write in the box:

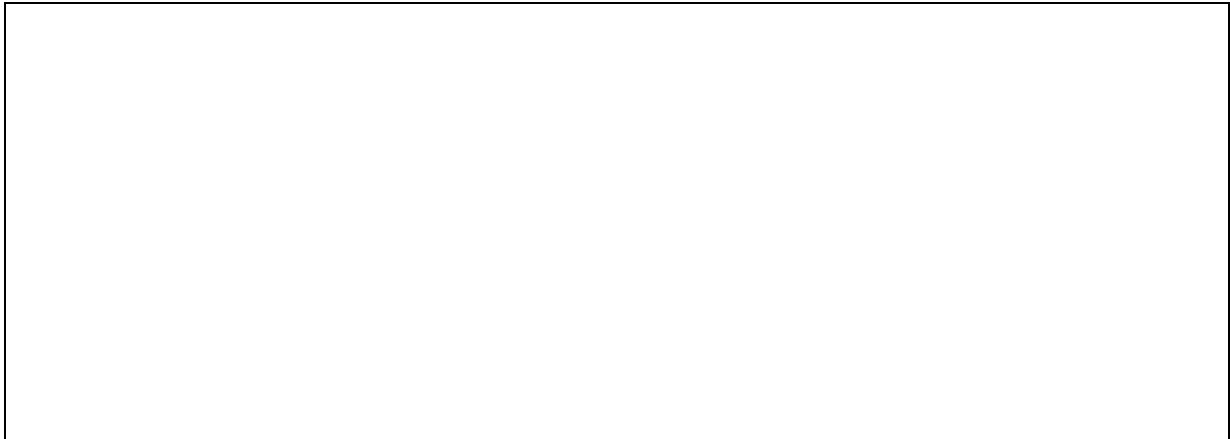
Imagine: Write important research findings about greenhouses. Include all building ideas for the greenhouse. What geometric equation can you use to cut the correct size of plastic to cover the greenhouse?

Greenhouse Research:

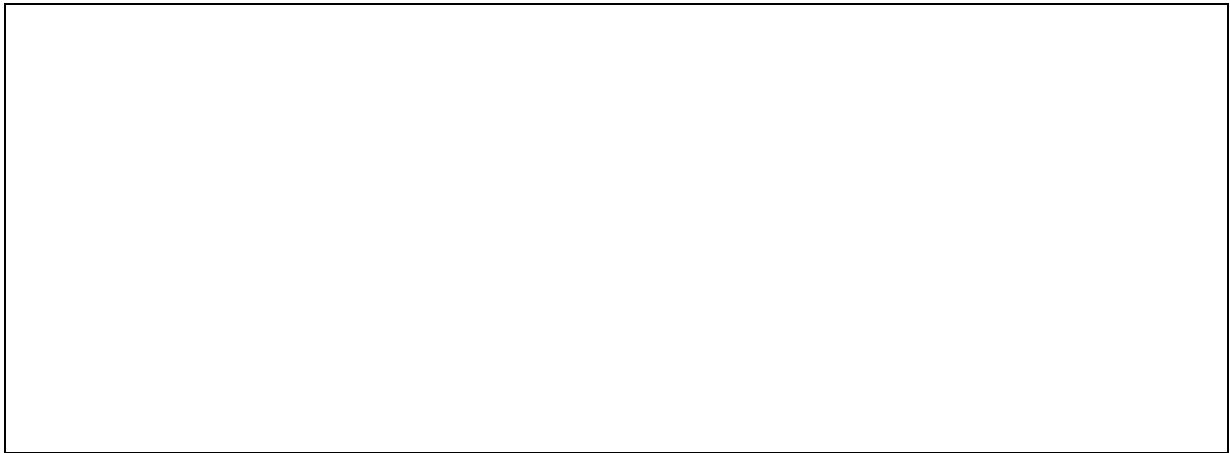
Brainstorming Ideas:

Plan: Choose two or three best ideas and sketch each design. Choose the best prototype.

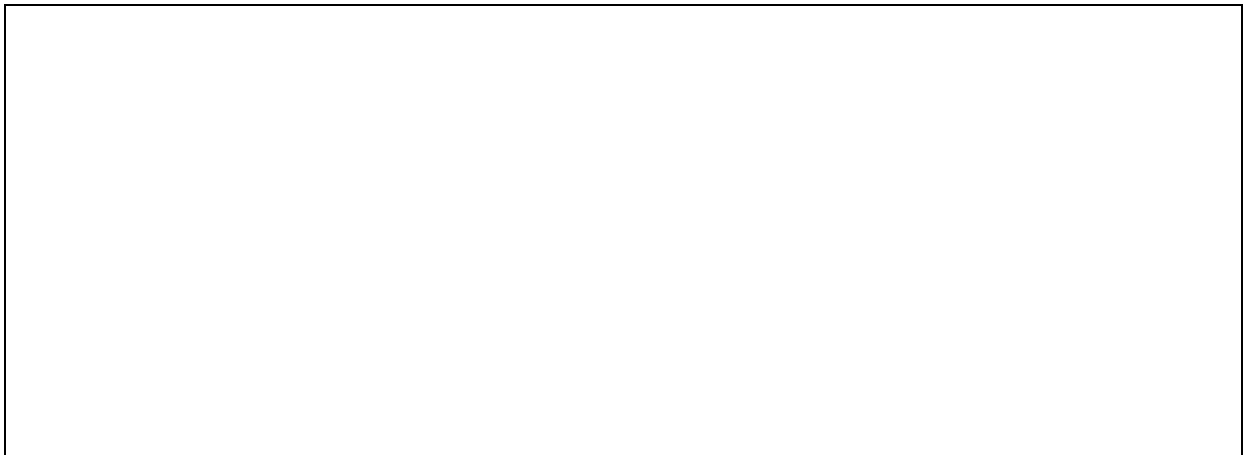
Design #1



Design #2



Design#3



Approved by: _____

Create: Build a working model that follows your chosen design. Write challenges and solutions you experience as your team builds the prototype. Include any math used to help build this design.

Experiment:

Does your greenhouse maintain a consistent temperature of 75-80F?

Does your greenhouse maintain the correct humidity of 50-70%?

Does your design include the appropriate height for plant growth?

What improvements will you make to your design?

Improve: Draw your greenhouse with the new modifications. Include any math equations used.



Each team is to review another team's design and model, then answer the following questions.

Name of team reviewed: _____

	Yes or No
Does the greenhouse maintain a consistent temperature of 75-80F?	
Does your greenhouse maintain the correct humidity of 50-70%?	
Does your design include the appropriate height for plant growth?	

List the specific strengths of the design:

List the specific weaknesses of the design:

How would you improve the design?

Inspected by: _____

Source: NASA Best Activity Guide