

Engineering Team Name: _____

Names: _____ Date: _____

Biodomes Engineering Design Project W O R K B O O K

Part 1: Designing Your Biodome

The type of environment we have chosen to design is _____.

BRAINSTORMING: Use this space to brainstorm some ideas for your biodome.

BIODOME DESIGN: Sketch your biodome in the box below for construction approval.

MATERIALS LIST: List the materials your engineering team needs to build your biodome.

Part 2: Building Your Biodome Structure

BUILDING: What *challenges* did you have when building your biodome?

What could you do to *improve* the structure for next time?

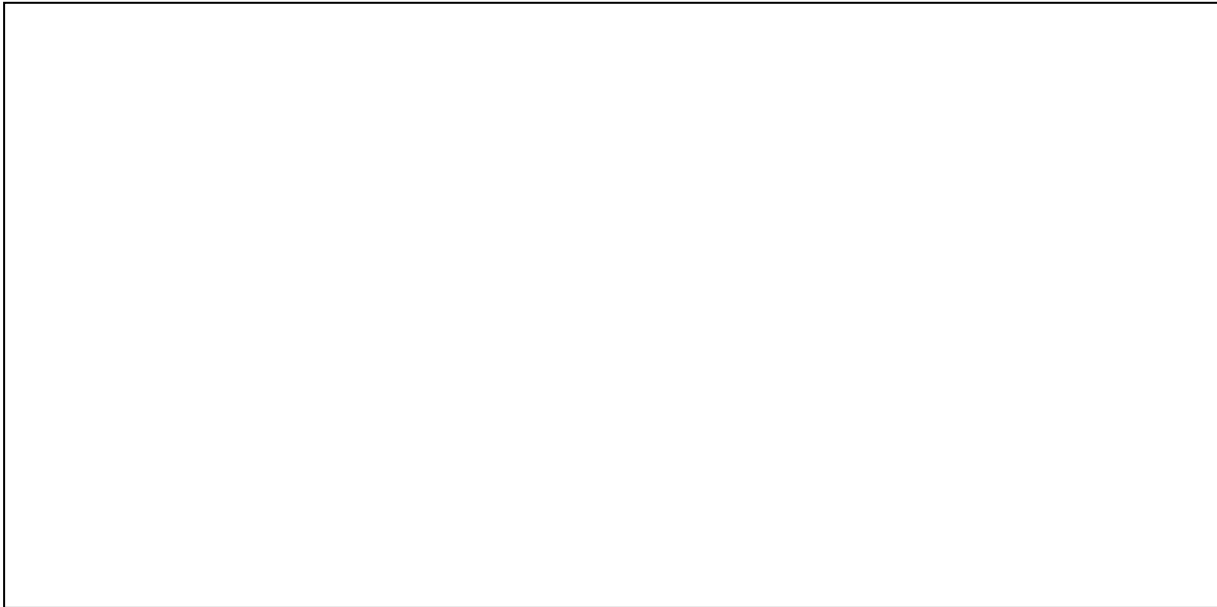
Part 3: Energy Flow in Your Biodome

Describe the type of environment that is found in your biodome.

List some *organisms* (plants or animals) that could be found in this environment?

What do those organisms need to survive?

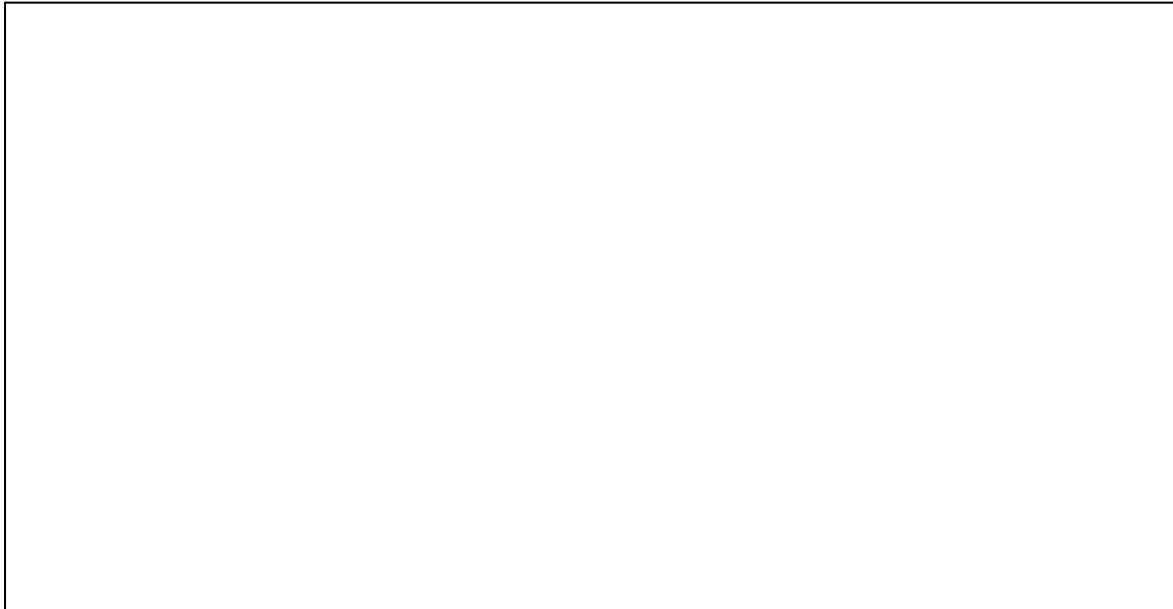
In the space below, draw one or more food chains or food webs that you might find in your biodome.



Part 4: Plants in Your Biodome

What seeds are you planting in your biodome?

Draw a sketch of your biodome that shows where the seeds are planted.



Will these plants support your food chain in Part 3? What changes will you need to make to your food chain if not?

Part 5: Animals in Your Biodome

What *observations* did you have when you looked at your biodome today? Has anything changed? How are the seeds or plants?

What are some types of animals that you *could* put in your biodome?

List the animals you are actually adding to your biodome.

What kinds of problems did you have in picking which animals to put inside the biodome? Did you need to make any design changes to your biodome because of the animals you put in it?

Part 6: Decomposers in Your Biodome

What *observations* did you have when you looked at your biodome today? Has anything changed? How are the seeds or plants? How are the animals?

List the decomposers you are adding to your biodome.

How do the decomposers fit into your food chain or web from Part 3? What is their role in the flow of nutrients?

Part 7: Review & Evaluation

What *observations* did you have when you looked at your biodome today? Has anything changed? How are the seeds or plants? Animals? Decomposers?

Was your biodome *successful*? Why or why not?

What *improvements* would you make to your biodome if you built it again?