

BIODOME RUBRIC	Excellent (15-13 points)	Good (13-10 points)	Satisfactory (9-6 points)	Need Improvement (5-0 points)
Designing Your Biodome				
<i>Brainstorm</i>	Group is able to develop 3-5 ideas fully, listing the benefits and drawbacks of each biodome design. They work well as a group.	Group is able to develop at least 2 ideas fully, listing the benefits and drawbacks of each biodome design. They work well as a group.	Group is able to develop at least 1 idea fully, listing the benefits and drawbacks of their biodome design. They work well as a group.	Group is not able to develop at least 1 idea full and does not list the benefits and drawbacks of their biodome design and/or They do not work well as a group.
<i>Sketch</i>	Student's individual sketch is detailed and includes labels and anticipated measurements. Sketch contains multiple views of the biodome.	Student's individual sketch is detailed and includes labels and anticipated measurements.	Student's individual sketch is detailed and includes some labels.	Student's sketch is not detailed, and completely lacks labels.
<i>Materials List</i>	Materials list is complete, detailed, and provides rationale for why materials were selected. List also provides alternatives in case original materials are not available.	Materials list is complete, detailed, and provides rationale for why materials were selected.	Materials list is mostly complete, detailed, and provides some rationale for why materials were selected.	Materials list is incomplete and provides no rationale.

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Building Your Biodome Structure				
<i>Challenges</i>	Student is able to identify challenges they had while building the biodome and provide a detailed reflection on why these challenges might have occurred.	Student is able to identify some challenges they had while building the biodome and provides some reflection on why these challenges might have occurred.	Student is able to some identify challenges they had while building the biodome but reflection on why these challenges might have occurred needs more detail.	Student does not identify challenges and/or does not reflect on these challenges.
<i>Improve</i>	Student is able to list at least 3 improvements to their design or process and state in detail why they would make these improvements.	Student is able to list at least 2 improvements to their design or process and state in detail why they would make these improvements.	Student is able to list at least 2 improvements to their design or process and makes some statement as to why they would make these improvements.	Student does not state improvements they could make and/or does not identify how these changes would improve their design.

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Energy Flow				
<i>Description</i>	Student clearly and in detail describes their environment using strong scientific vocabulary.	Student clearly and in detail describes their environment using some scientific vocabulary.	Student clearly detail describes their environment using some scientific vocabulary. Description could be more detailed.	Student's description is unclear and lacking in scientific vocabulary.
<i>Organisms</i>	Student lists multiple organisms from every level of the food chain and then provides clear and accurate rationale as to why they selected the organisms they did.	Student lists at least two organisms from every level of the food chain and then provides clear and accurate rationale as to why they selected the organisms they did.	Student lists at least one organism from every level of the food chain and then provides accurate rationale as to why they selected the organisms they did.	Student does not include organisms from different levels of the food chain and does not provide clear rationale.
<i>Basic Needs</i>	Student lists multiple needs for all of their organisms including precise amounts of food, water, oxygen/carbon dioxide, sun, etc. List is clear and detailed.	Student lists needs for all of their organisms including food, water, oxygen/carbon dioxide, sun etc.	Student lists at least food and water for all of their organisms	Student does not include basic needs for all of their organisms or needs list is seriously incomplete.
<i>Food Webs</i>	Student creates multiple interrelated chains that are accurate and detailed.	Student creates at least two interrelated chains that are accurate and detailed.	Student creates at least one chain that is accurate and detailed.	Student does not complete a food chain

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Plants				
<i>Seeds</i>	Student can name the seeds they are planting and clearly and in detail communicate why they selected those plants.	Student can name the seeds they are planting and clearly communicate why they selected those plants.	Student can name the seeds they are planting and begin to communicate why they selected those plants.	Student has difficulty explaining why they selected the seeds they selected.
<i>Placement</i>	Student can communicate where they placed the seeds and explain why using science vocabulary and their food web.	Student can communicate where they placed the seeds and explain why using science vocabulary.	Student can communicate where they placed the seeds and explain why using some science vocabulary.	Student has difficulty explaining the placement of their seeds.
<i>Plants and the Food Chain</i>	Student can communicate how the plants will support their food chain, and if changes are necessary, they identify and explain these changes using their food chain and science vocabulary.	Student can communicate how the plants will support their food chain, and if changes are necessary, they identify and explain these changes.	Student can communicate how the plants will support their food chain, and if changes are necessary, they identify and explain at least one of these changes.	The explanation of how the plant will support the food chain is unclear. Student does no identify or explain necessary changes.

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Animals				
<i>What are you adding</i>	Student can name the animals they are adding and clearly and in detail communicate why they selected those animals.	Student can name the animals they are adding and clearly communicate why they selected those animals.	Student can name the animals they are adding and begin to communicate why they selected those animals.	Student has difficulty explaining why they selected the animals they selected.
<i>Animals and the Food Chain</i>	Student can communicate how the animals will support their food chain, and if changes are necessary, they identify and explain these changes using their food chain and science vocabulary.	Student can communicate how the animals will support their food chain, and if changes are necessary, they identify and explain these changes.	Student can communicate how the animals will support their food chain, and if changes are necessary, they identify and explain at least one of these changes.	The explanation of how the animals will support the food chain is unclear. Student does no identify or explain necessary changes.
Decomposers				
<i>Observations</i>	Observations are clear, systematic include multiple forms of communication and science vocabulary. Student comments on both plants and animals.	Observations are clear and include science vocabulary. Student comments on both plants and animals.	Observations are clear and use some science vocabulary. Student comments on both plants and animals.	Observations are unclear or lack detail.
<i>What you are adding</i>	Student can name the decomposers they are adding and clearly and in detail communicate why they selected those organisms.	Student can name the decomposers they are adding and clearly communicate why they selected those organisms.	Student can name the decomposers they are adding and begin to communicate why they selected those organisms.	Student has difficulty explaining why they selected the organisms they selected.

<i>Decomposers and the Food Chain</i>	Student can communicate how the decomposers will support their food chain, and if changes are necessary, they identify and explain these changes using their food chain and science vocabulary.	Student can communicate how the decomposers will support their food chain, and if changes are necessary, they identify and explain these changes.	Student can communicate how the decomposers will support their food chain, and if changes are necessary, they identify and explain at least one of these changes.	The explanation of how the animals will support the food chain is unclear. Student does no identify or explain necessary changes.
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Review and Evaluation				
<i>Observations</i>	Observations are clear, systematic include multiple forms of communication and science vocabulary. Student comments on plants, animals and decomposers.	Observations are clear and include science vocabulary. Student comments on plants, animals, and decomposers.	Observations are clear and use some science vocabulary. Student comments on plants, animals, and decomposers.	Observations are unclear or lack detail.
<i>Was your biodome successful?</i>	The student uses multiple indicators to determine the success of their biodome. They clearly reference their data using scientific vocabulary and their knowledge of energy flow within ecosystems. Student clearly explains why they do or do not consider their biodome a success.	The student uses at least 2 indicators to determine the success of their biodome. They clearly reference their data using scientific vocabulary and their knowledge of energy flow within ecosystems. Student explains why they do or do not consider their biodome a success.	The student clearly reference their data using scientific vocabulary and their knowledge of energy flow within ecosystems to determine the success of their biodome. Student explains why they do or do not consider their biodome a success.	The student does not clearly communicate why their biodome was or was not a success.

<p><i>Improvements?</i></p>	<p>Student is able to list at least 3 improvements to their design or process and state in detail why they would make these improvements.</p>	<p>Student is able to list at least 2 improvements to their design or process and state in detail why they would make these improvements.</p>	<p>Student is able to list at least 2 improvements to their design or process and makes some statement as to why they would make these improvements.</p>	<p>Student does not state improvements they could make and/or does not identify how these changes would improve their design.</p>
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