

# Biodome Project



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# Biodome Project: Minimum Requirements

## **Directions**

This handout outlines the *minimum* requirements for the Biodome project.

## **Definition**

The Biodome is an encapsulated historical or futuristic city (approximately 200 years in the future) that is self-sustaining. The city could be on an isolated island, underwater, levitating in the sky, on another planet, a spaceship, etc. The city consists of 1,000 people. Your group is the city's leadership council. You have absolute power. Your group must make all the vital decisions to establish, develop, protect, and guide the Biodome community. Your project consists of a written report and a model of the city. Your work should be based on the following characteristics: your knowledge of how societies function, knowledge of the selected location and time period, basic scientific principles, logic, your concept of a utopia, and your own creativity.

## **Group Option**

You will work in small groups on this activity. The amount of work required is proportional to the total number of students working on the project (e.g. two "detailed" answers and models per student- explained below). Please note, in most cases, everyone in your group will receive the same grade for this project.

## **Components**

### **REPORT**

**50% of Grade**

#### **Synopsis**

A typed response to twenty questions about the Biodome (one paragraph per response minimum).

#### **Question Categories**

Location & adaptation, selection process, culture & values, government & laws, economy, education, entertainment, daily lifestyle, technology, and defense & crisis management

#### **Group Impact**

Two question categories expanded per group member

### **MODEL**

**50% of Grade**

#### **Synopsis**

A detailed visual display of the Biodome (e.g. model, diorama, video, Power Point, etc.)

#### **Mandatory Displays**

Residential, commercial, industrial, political, cultural & entertainment, religion, medical care, emergency intervention, transportation, and natural resources

#### **Group Impact**

Two displays expanded and detailed per group member

### **CLASS PRESENTATION**

**Not graded**

#### **Synopsis**

Plan on making a 2-5 minute presentation to the class and answering questions.

### **EXTRA CREDIT: Biodome Newspaper**

**up to a 20% Bonus**

#### **Synopsis**

Create a two to four page newspaper, complete with articles and illustrations.

#### **Mandatory Sections**

Front page, local, business, sports, and weather (one article per section)

#### **Group Impact**

Add two additional articles per group member

# Biodome Project: Report Details

## Synopsis

The Biodome report is a written narrative of how your historical or science fiction city functions. The report is comprised of answers to twenty questions. Understandably, the answers to each question could easily be multiple pages in length, however you are only required to answer the questions in general terms.

## Requirements

Each answer to *each question category* must be a minimum of one paragraph (five sentences) in length. Please include both an introduction and a conclusion.

**Group Impact: Two answers expanded per person (one page minimum per answer)**

## Questions

1. *Location and adaptation*
  - a. Where will your Biodome be located (be specific)?
  - b. How will your Biodome's technology enable it to adapt to the environment?
2. *Selection Process*
  - a. Why will people want to live in your Biodome?
  - b. Which groups of people will be excluded from your Biodome and why?
3. *Culture and Values*
  - a. Which values will be promoted?
  - b. What cultural events will be celebrated (e.g. holidays) and why?
4. *Government and Laws*
  - a. What will be the primary form of government and how will the leaders be selected?
  - b. What will be the most important laws and what will be the rights of the citizens?
5. *Economy*
  - a. How will the citizens obtain the resources they need (e.g. food, clothing, shelter, etc.)?
  - b. How will the citizens be compensated for their work (wages or other incentives)?
6. *Education*
  - a. How will children be prepared for adult life?
  - b. Which academic subjects will be emphasized and why?
7. *Entertainment*
  - a. How will citizens be entertained and motivated?
  - b. What will be *three* of the most popular forms of entertainment?
8. *Daily Lifestyle*
  - a. What will be a typical day for one of the citizens (be creative)?
  - b. What are examples of challenges and rewards a citizen might encounter everyday?
9. *Technology*
  - a. What technological resources will be readily available to the citizens?
  - b. How will technology make life easier for the citizens?
10. *Defense and Crisis Management*
  - a. How will the city deal with threats and crime?
  - b. How will the city deal with crises (e.g. hurricanes, earthquakes, disease, famine, and war)?

# Biodome Project: Model Details

## Synopsis

The Biodome report is a three-dimensional visual display of your historical or science fiction city. The model is comprised of multiple displays representing key components of your city. The displays may be created via a plethora of means, from colored paper to wood sculptures. *Note- Grading will be based on effort not the amount of money invested in the project.*

## Requirements

Create a three-dimensional display for each of the following categories. You must clearly **label** each display. Each display should look like the building. A minimum of **two displays per category** is required.

**Group Impact: Two displays expanded and detailed per group member**

*Note- It is highly unlikely your model will include all buildings in your Biodome.*

## Mandatory Displays

The following lists are sample buildings and structures. You are not required to include everything listed; rather you must include at least **two displays per category**. Creativity is encouraged (e.g. flying cars and lasers).

1. *Residential*
  - a. Homes for single family units (e.g. mansions and single-family homes)
  - b. Homes for multi-family units (e.g. hotels, apartments, and ghettos)
2. *Commercial*
  - a. Single building stores (e.g. individual stores and craft workers)
  - b. Buildings that sell a wide range of products (e.g. marketplaces and superstores)
3. *Industrial*
  - a. Factories and construction sites
  - b. Money traders, warehouses, and distribution centers
4. *Political*
  - a. Capitol
  - b. Statues and parks dedicated to leaders and heroes
5. *Cultural & entertainment*
  - a. Academies and museums
  - b. Libraries, arenas, and stadiums
6. *Power Supply*
  - a. Primary and secondary sources
  - b. Dissemination of power (e.g. connection grid)
7. *Medical care*
  - a. Hospitals
  - b. Medical facilities (e.g. based on specific needs- e.g. dentist)
8. *Emergency intervention*
  - a. Law enforcement, fire response, and guards
  - b. Courts and jails
9. *Transportation*
  - a. Roads
  - b. Public transportation systems (e.g. taxis, busses, trains, and monorails)
10. *Natural Resources*
  - a. Farmland and land for animals
  - b. Valuable minerals and other resources

# Biodome: First Week Activity

Names \_\_\_\_\_

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1. Where will your biodome be located and how will you protect your biodome?
2. Why would someone want to live in your biodome? What incentives will you offer?
3. What will make your biodome unique? Be specific.
4. What laws are important in your biodome? What freedoms are important?
5. How will you provide food and water for your citizens?

## Biodome: Second Week Activity

Names \_\_\_\_\_

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1. Considering your Biodome is limited to 1,000 people, what specific jobs will you need covered? Break down the 1,000 people into the roles they'll fulfill.  
Examples: Manufacturing, farming, business, attorneys, nurses, teachers, engineers, etc.
  
  
  
  
  
  
  
  
  
  
2. What are your Biodome's cultural values? What is important to your citizens? What holidays will be celebrated and why? Consider recruiting people from around the world.
  
  
  
  
  
  
  
  
  
  
3. Describe how your government will be organized. How will leaders be chosen?







# Biodome: Rubric

Names \_\_\_\_\_

*Each section is worth 2 points, unless stated otherwise.*

Written Report	Points Earned
1. Introduction	_____
2. Location and Adaptation	_____
3. Selection Process	_____
4. Culture and Values	_____
5. Government and Laws	_____
6. Economy	_____
7. Education	_____
8. Entertainment	_____
9. Daily Lifestyle	_____
10. Technology	_____
11. Defense and Crisis Management	_____
12. Conclusion	_____
13. Two answers expanded per group member	_____

Model	Points Earned
1. Labels	_____
2. Residential	_____
3. Commercial	_____
4. Industrial	_____
5. Political	_____
6. Cultural and Entertainment	_____
8. Power Supply	_____
9. Medical Care	_____
10. Emergency Intervention	_____
11. Transportation	_____
12. Natural Resources	_____
13. Two models expanded per group member	_____

Effort (*10 points*) \_\_\_\_\_

**Overall Score Modification (if any)** \_\_\_\_\_

**Reason:** \_\_\_\_\_

**Newspaper (Optional): *Maximum of 20% Bonus Points*** \_\_\_\_\_

**Total Grade** \_\_\_\_\_