

# **Biodome Project (Mars): Minimum Requirements**

## ***Directions***

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

## ***Definition***

The Biodome is an encapsulated futuristic city (approximately 50 years in the future) that is self-sustaining. The city consists of 100 people. You are the supreme ruler of your Biodome. You have absolute power. You 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, your knowledge of Mars, your concept of a utopia, and your creative expression.

## ***Group Option***

You will work individually, or with one partner, on this activity.

## ***Components***

### **REPORT**

**50% of Grade**

#### **Synopsis**

A written response to ten questions about the Biodome (one paragraph per response minimum).

#### **Question Categories**

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

### **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

### **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)

# **Biodome Project (Mars): Report Details**

## **Synopsis**

The Biodome report is a written narrative of how your 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 (four sentences) in length. Please include both an introduction and a conclusion.

## **Questions**

1. *Location and Adaptation*
  - How will your Biodome's technology enable people to live on Mars?
2. *Colonists*
  - Describe the people you would want in your Biodome.
3. *Culture and Values*
  - What cultural events will be celebrated (e.g. holidays) and why?
4. *Government and Laws*
  - Describe your most important laws and government system.
5. *Economy*
  - How will the citizens obtain the resources they need (e.g. food, clothing, shelter, etc.)?
6. *Education*
  - How will children be prepared for adult life?
7. *Entertainment*
  - How will citizens be entertained and motivated?
8. *Daily Lifestyle*
  - What will be a typical day for one of the citizens (be creative)?
9. *Technology*
  - How will technology make life easier for the citizens?
10. *Defense and Crisis Management*
  - How will the city deal with threats and crime?

# **Biodome Project (Mars): Model Details**

## **Synopsis**

The Biodome report is a three-dimensional visual display of your 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. You are welcome to create your model in digital format (e.g. Google Slides).

## **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. You only need one building per category (i.e. ten buildings total).

## **Mandatory Displays**

The following lists are sample buildings and structures. Creativity is encouraged (e.g. flying cars and lasers).

1. *Residential*
  - Where will your citizens live?
2. *Commercial*
  - Share an example of a hi-tech store.
3. *Industrial*
  - Factory or construction site
4. *Political*
  - Government building
5. *Cultural & entertainment*
  - Examples: Academy, museum, library, arena, theater, game center
6. *Religion*
  - Churches, synagogue, or temple
7. *Medical care*
  - Hospital or medical facility (e.g. based on specific needs- e.g. dentist)
8. *Emergency intervention*
  - Law enforcement, fire response, and guards
9. *Transportation*
  - Public transportation systems (e.g. taxis, busses, trains, monorails, hover trains, and transporters)
10. *Natural Resources*
  - Farmland and land for animals or valuable minerals

# Biodome (Mars): Rubric

Names \_\_\_\_\_

Each section is worth 2 points, unless stated otherwise.

## *Written Report*

## *Points Earned*

1. Introduction	_____
2. Location and Adaptation	_____
3. Colonists	_____
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	_____

## *Model*

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	_____

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

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

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

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

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