

# Middle School Lesson Plan

## Mission Ready: Building Your Mars Crew

Student Handout



### Mars Simulation

Which Mars simulation example did you receive? \_\_\_\_\_

Where is this real world Mars simulation? What makes it special? What types of activities can future astronauts train for here?

### Mars Flashline Roles

Student Name	Role	Description
	<b>Commander</b>	
	<b>Executive Officer</b>	
	<b>Engineer</b>	
	<b>Scientist (Geologist)</b>	
	<b>Scientist (Biologist)</b>	
	<b>Health &amp; Safety Officer</b>	
	<b>Journalist</b>	

### Team Planning Questions:

1. Why did you choose each person for their role?

2. What backup skills should each person have?
3. How will you handle conflicts or disagreements?
4. What happens if someone gets sick or injured?

### **Mission Patch Design**

<b>Drawing of Mission Patch</b>	<b>Description of Mission Patch</b>

### **Your Role:**

<b>Key Challenges</b>	<b>Main Responsibilities</b>	<b>Critical Information</b>

## Group Responsibilities and Team Commitments

### 30 Day Survival Plan

Using the prompts below, develop a plan for each day in order for your team to survive.

#### Planning Questions:

1. **Shelter:** How will you repair/extend your living space?
2. **Water:** How will you ensure clean water for 30 days?
3. **Food:** How will you ration food and what if supply is delayed?
4. **Power:** How will you conserve energy and handle dust storms?
5. **Health:** What medical emergencies worry you most?
6. **Roles:** How will you divide daily responsibilities?
7. **Morale:** How will you handle stress and conflict?

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14

<b>Day 15</b>	<b>Day 16</b>	<b>Day 17</b>	<b>Day 18</b>	<b>Day 19</b>	<b>Day 20</b>	<b>Day 21</b>
<b>Day 22</b>	<b>Day 23</b>	<b>Day 24</b>	<b>Day 25</b>	<b>Day 26</b>	<b>Day 27</b>	<b>Day 28</b>
<b>Day 29</b>	<b>Day 30</b>					

**Write a 1-page journal entry as if you were preparing for your first analog mission:**

*Dear Diary,*

**Reflection Questions:**

1. What surprised you most about analog missions?
2. Which environment (Arctic or desert) would be harder for you personally? Why?
3. What questions do you want to ask our guest speakers?
4. How do you think your Mars mission team would handle real isolation and stress?