



Planet Designer: Martian Makeover!

Name:

Part 1

Open the computer interactive, “Martian Makeover.” After viewing the “Briefing” and “MAVEN Mission,” collect data for the table below in the “Mars Stats” and “Snapshot” section of the interactive.

Mass	
Density	
Radius	
Distance from the Sun	
Albedo	
Description of Color	
Greenhouse Strength	
Average Surface Temperature (Celsius)	
Description of Atmosphere (thickness, other characteristics)	

1.1 Explain why you think Mars is so cold. (Hint: Use the information from the table, and the things you learned in “Planet Designer: What’s Trending Hot?”)



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Part 2

Click on the “Next” button to enter the “Makeover” section. Adjust the “Atmospheric Thickness” and “Greenhouse Strength” until liquid water is possible on Mars’ surface. Write your findings below:

Atmospheric Thickness	Greenhouse Strength	Surface Temperature	Description of Climate

2.1. Compare Mars from Part 1 with the new, watery Mars you created here. How are they different?

2.2. Click the “Compare to Earth” button. How does the Mars you created compare with Earth today?

2.3. Do you think humans could comfortably live on the watery Mars you created above? Write a paragraph to explain your answer.