



Homework: Making Mars the New Earth

Directions: Read each question carefully and select the best answer.

1. **According to the article, what evidence suggests that Mars was warm in its youth?**
 - A) Ancient ruins and fossilized cities
 - B) Evidence of ancient rivers and large seas
 - C) Deep frozen caves filled with ice
 - D) Thick layers of vegetation under the soil
2. **How do scientists propose warming Mars and helping create an atmosphere?**
 - A) By using large mirrors to focus sunlight on the surface
 - B) By digging deep geothermal wells into the soil
 - C) By adding greenhouse gases like carbon dioxide (CO_2) into the air
 - D) By detonating devices at the planet's core
3. **Who is Robert Zubrin?**
 - A) An aerospace engineer who supports transforming Mars
 - B) A botanist studying plant growth in low-gravity environments
 - C) An astronaut currently living on a Mars colony
 - D) A politician who opposes space exploration funding
4. **According to Robert Zubrin, one benefit of going to Mars is that it will challenge:**
 - A) Earth's financial systems
 - B) Our youth, inspiring millions of new scientists, doctors, inventors, and engineers
 - C) Robots to handle extreme weather conditions
 - D) Older generations to learn new technologies
5. **Because Mars has less gravity than Earth, humans living there over time would likely become:**
 - A) Lighter, taller, and slimmer
 - B) Short, heavy, and muscular
 - C) Unable to walk or stand
 - D) Physically identical to people living on Earth
6. **What biological concept refers to a species splitting into many different types over time?**
 - A) Atmosphere formation
 - B) Genetic stagnation
 - C) Species divergence
 - D) Planetary adaptation



7. **Why does the text suggest that inhabitants of Mars will develop unique cultures and languages?**
- A) Mars will be settled by different groups who want to live where rules haven't been created yet
 - B) Earth governments will force all settlers to speak a newly invented language
 - C) Settlers will lose all memory of Earth's history after the six-month journey
 - D) Communication with Earth will be completely impossible
8. **What is the layer of air or gas around a planet called?**
- A) Biosphere
 - B) Atmosphere
 - C) Hydrosphere
 - D) Stratosphere
9. **What does the word "green" mean in the title "*What would it take to green the red planet?*"**
- A) To paint the rocks and surface green
 - B) To make a planet habitable for plant and animal life
 - C) To collect green minerals from the ground
 - D) To build eco-friendly factories on Mars
10. **What happens during Year 0 of the Thousand-Year Project?**
- A) Rain begins to fall across the surface
 - B) Survey missions begin, with crews adding housing and buildings to the site
 - C) Cities are fully built and populated
 - D) Flowers and trees start growing in the soil
11. **According to the timeline, what major change begins in Year 100?**
- A) An atmosphere starts to form as greenhouse gases are added
 - B) Rivers and large lakes fill with water
 - C) Humans can walk outside without breathing equipment
 - D) The first human city is officially established
12. **What happens in Year 200 of the Thousand-Year Project?**
- A) The planet cools down drastically
 - B) Survey missions end completely
 - C) Rain falls, water flows, and the red soil greens very slightly
 - D) Large forests of trees cover the equator
13. **By Year 600, why will humans be able to grow flowers and plants on Mars?**
- A) Seeds are genetically engineered on Earth
 - B) Artificial domes are built over the whole planet
 - C) There is enough oxygen in the soil and atmosphere
 - D) Soil is imported directly from Earth



14. By **Year 1,000**, what is true about human life on Mars?
- A) Humans can freely walk outside without any gear
 - B) People live in colonies and cities, but must wear breathing equipment outside
 - C) All humans on Mars have moved back to Earth
 - D) Plants have died out due to lack of sunlight
15. How long will it take before there is enough oxygen outside for humans to walk around **without breathing equipment**?
- A) Exactly 100 years
 - B) 600 years
 - C) 1,000 years
 - D) Thousands of years
16. How long does the journey from Earth to Mars take during the survey missions?
- A) Three months
 - B) Six months
 - C) Eighteen months
 - D) Two years
17. Which of the following is **NOT** a benefit of Earth's atmosphere mentioned in the reading?
- A) Provides oxygen needed to breathe
 - B) Protects from the sun's harmful rays
 - C) Keeps the planet warm enough for oceans and rivers
 - D) Increases the planet's gravity
18. Where is Mars's water currently stored today?
- A) Flowing in large rivers near the equator
 - B) Frozen in the planet's polar regions
 - C) Floating as clouds in the upper atmosphere
 - D) Locked deep within active volcanoes
19. Why does Robert Zubrin believe opening Mars to humanity is crucial for our long-term survival?
- A) Earth will run out of oxygen within 100 years
 - B) It gives our species a place to grow and evolve
 - C) Mars has unlimited fossil fuels
 - D) Earth's gravity is becoming too strong for humans
20. What comparison does Zubrin make between people on Mars and people on Earth?
- A) Earth people will appear short and heavy compared to Mars inhabitants
 - B) Earth people will be much taller than Mars inhabitants
 - C) Mars inhabitants will be physically weaker in every way
 - D) There will be no physical differences between them