

# The Invisible Force

## Video Worksheet

Name \_\_\_\_\_

Class Period \_\_\_\_\_

Date \_\_\_\_\_

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1. Why don't we have 10 mile high mountains on Earth?

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2. What is a super nova?

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3. Why is Mars a desert planet?

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4. Where are our primary gravity sensors located in our bodies?

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5. What is the name of the system in our body that allows us to maintain our balance and orientation against the force of gravity?

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6. When we go into space, what are some of the immediate effects of losing or counteracting the force of gravity?

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7. What happens to our **bones** when the force of gravity is counteracted or absent for a long period of time?

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8. What happens to our **muscles** when the force of gravity is counteracted or absent for a long period of time?

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9. What is the longest period of time a person has lived in space?

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10. Explain the major health problems we face as we plan our first human landing on Mars **and** how we are working to solve the problem.

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**Extra Credit:** Do the "Talk About..." & "Try This..." activities presented at the end of Part 1.

***Please continue on the other side.***

11. Why must the human race establish colonies on other planets?

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12. Explain why human embryo development in reduced or zero gravity is impossible right now.

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13. Was did Sir Isaac Newton have to say about gravity?

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14. What happens to the force of gravity as the mass of an object is increased?

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15. What effect did the an understanding of gravity have on our human society?

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16. What forces are at work pulling and pushing at Earth's surface?

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17. What causes earthquakes?

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18. What causes volcanoes to erupt?

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19. Why isn't the force of gravity the same at all points on the earth?

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20. How does a "white dwarf" star become a super nova?

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21. Why may Einstein have been wrong about what he called " ...the biggest blunder of my life." ?

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**Extra Credit:** Do the "Talk About..." & "Try This..." activities presented at the end of Part 2.