

## **Gravity and Motion**

### **Understanding Main Ideas**

*Answer the following questions in the spaces provided.*

1. How are gravity and weight related? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. How does Newton's law of universal gravitation apply to Earth and the moon? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Use Newton's first law of motion to explain why a basketball rolls across the court. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. How does distance affect the strength of the force of gravity? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### **Building Vocabulary**

*Write a brief description of each of the following.*

5. force \_\_\_\_\_  
\_\_\_\_\_
6. gravity \_\_\_\_\_  
\_\_\_\_\_
7. law of universal gravitation \_\_\_\_\_  
\_\_\_\_\_
8. mass \_\_\_\_\_  
\_\_\_\_\_
9. weight \_\_\_\_\_  
\_\_\_\_\_
10. inertia \_\_\_\_\_  
\_\_\_\_\_
11. Newton's first law of motion \_\_\_\_\_  
\_\_\_\_\_