




### **G8 Science: Class 6 Homework**

1. Give two examples of each of the following systems: **[8 marks]**
  - a. Mechanical System
  - b. Optical System
  - c. Hydraulic System
  - d. Electrical System
2. Compare and contrast physical systems and social systems (1 similarity, 2 differences). **[3 marks]**
3. Name two inputs, two outputs and two side effects of the transportation system. **[6 marks]**
4. Name two natural inputs to a garden. Name two man-made inputs to a garden. Are there any side effects to a garden? Explain. **[6 marks]**

5. What are the physical parts of a waste management system? What are the social parts of a waste management system? **[4 marks]**
6. Early waste management involved dumping garbage in one spot and then burning it, burying it or leaving it there. Describe some of the social factors that caused this system to evolve. **[2 marks]**
7. Name five products or devices that you used today and tell which type of physical system they represent. For example, a bathroom tap is a mechanical system. **[10 marks]**
8. For each social system below, suggest what you think are its two most important components. Justify your answer. **[9 marks]**
- a. Justice System
  - b. Education System
  - c. Public Transportation System

9. For each of the following systems, complete the following: **[12 marks]**

Personal Gaming Console 	Desired Task	
	Input	
	Output	
	Side Effects	
Electronic Egg Beater 	Desired Task	
	Input	
	Output	
	Side Effects	
Hydraulic Excavator 	Desired Task	
	Input	
	Output	
	Side Effects	

10. Why is it often more difficult to analyze social systems than physical systems? **[2 marks]**

11. State two components common to all forces. How are these indicated in a diagram?

**[4 marks]**

12. A) Give two examples of forces in your daily experience that require direct contact to have an effect. **[2 marks]**

B) Give two examples of forces in your daily experience that do not require direct contact have an effect. **[2 marks]**

13. The following masses are located on Earth. Calculate the weight of each object. **[4 marks]**

a) 25 kg \_\_\_\_\_

b) 40 kg \_\_\_\_\_

c) 150 kg \_\_\_\_\_

d) 250 g \_\_\_\_\_

14. You stand on a weight balance and it reads 40 kg. Suppose a new planet was discovered that was much larger than Earth. Would you weigh more or less than on Earth? Explain your reasoning. **[3 marks]**