Name: _____ Date: _____

PULLEYS AND GEARS

Over the last two months you have learned a great deal about pulleys and gears. You have had the opportunity to learn about different types, practise building systems, and see how we use them in everyday life. For the end of our unit we will not be writing a test, instead you will answer the questions to follow by using the work you have done in class throughout this unit.

1. Describe the purpose of pulley systems and gear systems. (Why do we have them?)

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2. Describe how rotary motion in one component is transferred to another component in the same structure. (How can we turn something to make something else turn?)

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3. Describe how one type of motion can be transferred into another type of motion using pulleys and gears. (How can we change the type of motion, e.g., how can we turn something to make something else go straight?)

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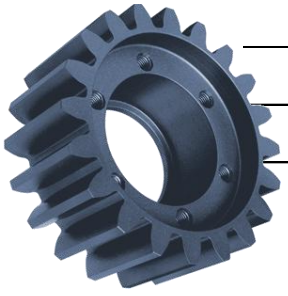

4. In the space below draw:
    a. A pulley system that makes it easier to lift something.
    b. A gear system that increases the speed of motion.

5. Describe how gears operate in one plane (what type uses a flat surface) and in two planes (what type does not sit on a flat surface?).

6. Identify pulley systems and gear systems that are used in daily life.

7. Explain how the gear system on a bicycle works. Identify the input to make the bicycle work (what makes it go?) Identify the output (what is the final result of operating the bicycle).