**Powerful Pulleys: The Power of Mechanical Advantage Activity – Pre-Activity Assessment Worksheet - Answers**

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| 1. MC900055077[1]What is a **pulley**?   A pulley is a simple machine consisting of a wheel around which  a rope/string is threaded, changing direction of the string.   1. What is the purpose of using a **pulley**?   A pulley is used to apply mechanical advantage to a mechanical setup.   1. And where do you see **pulleys** in everyday life?   Possible answers include: cranes, elevators, theatre curtains (the curtains are raised by a pulley system), wells, exercise systems, flag pole, conveyor belt, washing machine, construction equipment   1. What are the two types of **pulleys**?   Fixed pulleys movable pulleys     1. Using the picture on the next/back page, connecting Line **A** with Line **B** by drawing the way you think the line should go through the **pulleys**. |

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| 1. In the above image (and including your filled-in line drawing), describe why the tension is reduced.   Because the load is distributed across all four lines, thusly reducing the tension. |