

FOCUS ON

MAKING A PULLEY SYSTEM FOR RAPUNZEL

1. Write a paragraph describing how a pulley works.
2. Where else might pulleys be useful in the real world?
3. Why does pulling a cord raise a flag up a pole?
 - A. The pulley changes the size of the force.
 - B. The pulley changes the direction of the force.
 - C. The pulley lessens the pull of gravity on the flag.
4. What would have to be changed in an elevator's design if there was no counterweight?
 - A. The motor would need to be more powerful.
 - B. The pulleys would no longer be needed.
 - C. Less force would be needed to lift the elevator.

5. What does **draped** mean in this book?

*She called for Rapunzel to let down her hair. Rapunzel's long hair **draped** from the tower window. The witch climbed up her hair.*

- A. covered
- B. lifted up
- C. fell loosely

6. What does **balances** mean in this book?

*This weight **balances** the car's weight. When the elevator goes up, the counterweight goes down. When the elevator lowers, the counterweight rises.*

- A. adds onto the weight of
- B. opposes with an equal force
- C. reduces the weight of

Answer Key:

1. Answers will vary
2. Answers will vary
3. B
4. A
5. C
6. B