



Activity 4: Under Pressure

Question

How can air be used to lift a book?

Materials

- Ziploc bag (Medium or large freezer bags work best, but you can also use a sandwich bag.)
- books of various sizes
- straw

Hypothesis

Answer the question: How can air be used to lift a book?

Need a Hint?

Think about what happens when you inflate the tires of a bike or car.



Skill Builder

How to write a hypothesis.

If you need to use this Skill Builder, access it from the online course.

Procedure

1. Place the bag flat onto a table, and slide the straw into the Ziploc bag.
2. Seal up the Ziploc bag all around the straw. Be sure the entire bag is sealed tightly so that the only way air can get in or out is through the straw.
3. Place a book on the bag.
4. Blow gently into the straw so that the bag becomes inflated similar to a balloon.
5. If the book is lifted, try using a bigger book. If the book cannot be lifted, try using a smaller book.
6. Record your observations.

If you are unable to do the activity, watch the ADLC Digital Lesson video, which you can access from the online course.

Observations

1. Were you able to lift the book by blowing into the Ziploc bag?

2. Explain any changes or adjustments you had to make in order for this experiment to work.

Conclusion

Go back and read your **Hypothesis**. Is there anything you would add or change to answer the question now?