



How Strong is Air Pressure?

Furnished as a Free Service to Home Educators

By

The Backyard Scientist

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The following experiment from the Backyard Scientist was developed expressly for use in newsletters serving home educators. This experiment is NOT contained in the award-winning *Backyard Scientist* books and science kits. As in the *Backyard Scientist* books, it is designed to be simple, fun, and of course to teach an important scientific concept.

Gather the following supplies:

- Two identical plungers (the kind used to clear plumbing clogs)
- A cup of tap water

Begin experimenting.

1. Moisten the edges of the two plungers.
2. Tightly press the two plungers together.
3. Try to pull them apart.

Can you answer the following questions from your observations?

1. What was the purpose of wetting the edges of the plungers?
2. When you pushed the plungers together, did you hear air escaping?
3. Were you able to pull the plungers apart?

Backyard Scientist solution to the experiment.

When you pushed the two plungers tightly against one another, you forced the air in the two cups of the plungers out. When you stopped pushing, air from the outside could not replace this air you pushed out because of the air tight seal we formed by wetting the edges of the plungers.

The air pushing in from the outside of the plungers keeps you from pulling them apart. Sir Isaac Newton formulated many of the laws of physics that explain this and other phenomenon.

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About the author.

Jane Hoffman, the Backyard Scientist, is the internationally known author of the award-winning *Backyard Scientist* hands on science books and science kits. The nine science books and three kits will excite, motivate and instruct any student.

Also available from the Backyard Scientist is the “Parent Guide to Teaching Science.” This work covering grades

K –12 helps parents insure they are teaching the science subjects and materials their students should be learning by grade level. Her newest book, *A Science Wonderland for the Very Young* targets children ages 2-7 years.w

In addition to writing and developing these exciting materials, Jane is a sought-after speaker at Home School and other educational conferences nationwide where she makes science come alive. Everyone leaves her sessions better informed as well as motivated and enthused to apply the concepts they learned. Hoffman’s teacher inservice workshops for teachers are rated the best available by teachers and administrators. She has been serving the homeschool and educational markets with quality materials for more than 20 years.

For a free brochure, send a self-addressed, stamped (\$.55) envelope to: Backyard Scientist, PO Box 16966, Irvine, CA 92623 or visit her on the Worldwide Web at: www.backyardscientist.com