

Blast Off!

Learn about trajectory.

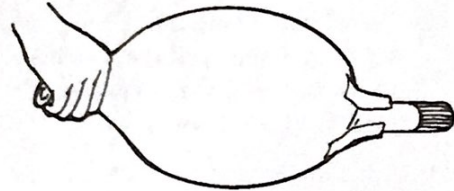
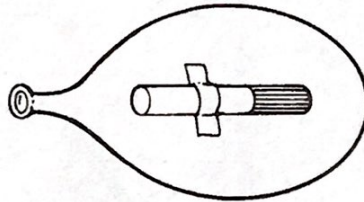
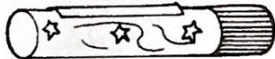
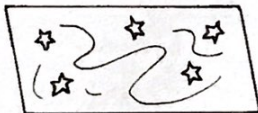


Materials

- balloons of several shapes and sizes
- index cards or tagboard
- ruler
- markers
- colored pencils or crayons
- tape
- fishline

Procedure

1. Use an index card or tagboard to make a rocket like the one shown in the illustration.
2. Color the rocket pattern and roll it into a cylinder. Tape the cylinder together.
3. Blow up a balloon and hold it in the inflated condition as a partner gently tapes the rocket model to the top or side of the balloon.
4. Take the balloon rocket to the designated launch area preferably outside the classroom.
5. Set the balloon rocket on the launching pad, lean away from the rocket, and release the balloon.



- How well did your rocket work?
- Try launching the rocket again with a different balloon. Try long balloons, twisties, very large spherical balloons, and any other sizes and shapes available.
- Try the slender design shown here. This design curls into a long, slender tube. It can be attached to the top or side of the balloon.
- With which balloon did this model work best?
- Design your own rocket version. Modify one of the two designs shown on this page or create an entirely new design.
- Try launching your design, using your favorite type of balloon.



- Test it on other balloon sizes.
- Compare your design with those launched by other class members.
- Why do you think that thin, cylindrical models often work best?