



TURKEY BASTER PING PONG BALL LAUNCHER

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- Turkey Baster
- Ping Pong Balls

INSTRUCTIONS

STEP 1: Using the turkey baster, engineer a turkey baster ping pong ball launcher, which will shoot a ping pong ball at least 15 feet.

STEP 2: Convey your design through sketches, drawings and a physical model, known as a prototype.

STEP 3: Test the prototype and refine the design by identifying changes that need to be made.

EXPLANATION

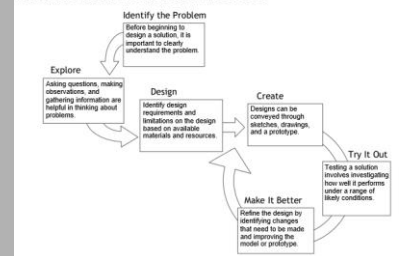
Using the engineering design process, which is a series of steps engineers use to guide them as they solve problems, you designed a turkey baster ping pong ball launcher. However you designed the launcher, an applied force pushes the ping pong ball, causing it to shoot at least 15 feet.



SCIENCE BACKGROUND

A situation that people want to change or create can be approached as a problem to be solved through engineering. Possible solutions to a problem are limited by available materials and resources. The engineering design process is a series of steps engineers use to guide them as they solve problems.

ENGINEERING DESIGN PROCESS



I CAN STATEMENTS

- ✓ I can ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- ✓ I can define a simple design problem reflecting a need or want that includes specific criteria for success and constraints on materials, time, or cost.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

K-2 – Engineering Design
3-5 – Engineering Design

