

Experiments Supply List

Day 1

WHAT'S UP?

FOR DEMO 1

- ☐ Regular golf ball
- ☐ Plastic golf ball

FOR DEMO 2

- ☐ 2 similar latex balloons, one filled with air, the other filled with helium
- ☐ Two 4-foot lengths of string or ribbon
- ☐ Masking tape
- ☐ Balloon weight
- ☐ 2 pieces of paper for each student

LIGHT & DARK

- ☐ 4½ x 9-inch piece of blackout fabric per student
- ☐ Duct tape
- ☐ Fabric marker (pick a color that's easy to see on the fabric)
- ☐ Empty paper towel tube or any cylinder up to 2 inches in diameter

Day 2

NEWTON'S CRADLE (per table)

- ☐ 4 ¾ x 6-inch wooden dowels
- ☐ One 5 x 5 x ¼-inch or greater piece of craft wood
- ☐ 8 jumbo craft sticks (6 if you are using wood glue instead of glue dots)
- ☐ 16 ¾-inch permanent glue dots or wood glue
- ☐ Tape (masking or duct) or wood glue
- ☐ Masking tape
- ☐ 2 golf balls
- ☐ Two 14-inch lengths of string (non-stretchy)
- ☐ Two 5½-inch lengths of approximately 0.3-inch-wide duct tape (Standard duct tape is 1.88 inches wide. Cut one piece into 6 narrow strips.)

GOIN' IN CIRCLES

FOR DEMONSTRATION

- ☐ 1 ball

FOR EACH STUDENT

- ☐ 1 large paper plate with a smooth, raised edge
- ☐ 1 marble

Day 3

FORCE FIELD

- ☐ Baseball and bowling ball (or other heavier ball)
- ☐ Painter's tape
- ☐ Whiteboard and dry erase marker

PER GROUP OF STUDENTS

- ☐ 1 small basket
- ☐ 1 large plastic laundry basket
- ☐ Variety of objects of different weights (whatever non-breakable items you have available: e.g., bowling ball, different sports balls, feather, bag of flour (wrapped in plastic), bag of dog food, bag of chicken feed)

POM-POM LAUNCHER (per student)

- ☐ One 2 x 6-inch diameter mailing tube
- ☐ Two 2-inch rubber bands
- ☐ One 8-inch or longer light-colored zip tie

- ☐ One 1½-inch pom-pom
- ☐ Masking tape
- ☐ Ruler
- ☐ Saw or carpet knife

Day 4

SPRING THING

FOR DEMONSTRATION

- ☐ Sheet of paper
- ☐ Newton's Cradle from Day 2

FOR EACH STUDENT

- ☐ 1 cat spring toy
- ☐ One 3½ x ¼-inch non-latex rubber band (any size between 2½ to 4-inch length by ⅛ to ¼-inch width)
- ☐ One 2 x ¼-inch wooden dowel (or similar-sized item)

BALLOON JOUSTING

FOR DEMONSTRATION

- ☐ Sheet of paper
- ☐ Newton's Cradle from Day 2

FOR EACH STUDENT

- ☐ 1 balloon (beware of latex allergies)

FOR EACH STATION

- ☐ One 10-foot length of string
- ☐ 2 plastic drinking straws
- ☐ Painter's tape or other low adhesive tape
- ☐ 2 helpers to hold string ends
- ☐ 2 balloon pumps (optional)

Day 5

TESTS OF STRENGTH

FOR EACH STUDENT

- ☐ 1 flat sheet of copy paper
- ☐ 1 fan-folded sheet of copy paper
- ☐ 2 supports that are approximately 2 inches tall (boxes, books, etc.)
- ☐ 1 foam or paper bowl or cup

FOR EACH STATION

- ☐ 1 container of approximately 50 marbles

BATTERING RAM

FOR EACH BATTERING RAM

(Note: You can reuse the Newton's Cradle frames from Day 2.)

- ☐ 4 ¾ x 6-inch wooden dowels
- ☐ One 5 x 5 x ¼-inch or greater piece of craft wood
- ☐ 8 jumbo craft sticks (or 6 if you are using wood glue instead of glue dots)
- ☐ 16 ¾-inch permanent glue dots or wood glue
- ☐ Tape (masking or duct) or wood glue
- ☐ Two 20-inch lengths of string
- ☐ One 5¼-inch jumbo wood shaker peg (barn peg)
- ☐ Masking tape

FOR EACH STATION

- ☐ Objects of different sizes and masses for the students to "ram": brick, small paper bag, foam block, canned goods, small lightweight and heavy boxes, etc.