

# The Paper Jumping Jacks

**The Action** Investigate static electricity, by demonstrating the attraction or uncharged and charged objects.

**Grade Level**  
Grade 4 – Electricity & Magnetism  
Grade 6 – Energy in our Lives  
Grade 9 – Using Electricity

**Materials**  
Plexi-glass  
4 Rubber stoppers  
Anti-holes (hole-punch confetti)  
Cloth or rag

**Instructions** Place the four rubber stoppers at the corners of the plexi-glass on a flat tabletop. Spread out the anti-holes between the rubber stoppers. Place your piece of plexi-glass on top of the rubber stoppers. Notice that the anti-holes remain motionless lying flat on the table top, underneath your glass. Rub the top of the plexi-glass with your cloth or rag, and notice the motion of the anti-holes.

**Safety**

**Hints**

**Science Principle** By rubbing the plexi-glass a negative charge is built up on the glass. The anti-holes are attracted to this charge, because the opposite charge is induced in them. At the moment that they touch the glass, the electrons can migrate to the paper; this gives the same charge and thus they are suddenly repelled. As soon as they are back on the table, the anti-holes lose their excess charge to the tabletop, leaving them neutral, and the process can start all over again. This jumping back and forth from the table to the glass sheet can occur in very quick succession or it may take a longer time.