Glow

Purpose
To determine how a fluorescent tube works.

Materials
Balloon
Paper towel
Liquid soap
Fluorescent tube
Adult

Procedure
• Inflate and tie the balloon.
• Ask an adult to wash the outside of the fluorescent tube and thoroughly dry it with a paper towel.
• In a dark room, place one end of the tube against the floor. Ask your adult helper to assist in supporting the tube.
• Hold the tube upright and quickly rub the balloon up and down the outside of it.

CAUTION: Care should be taken not to press too hard or the tube might break.

Results The fluorescent tube starts to glow and the light moves with the movement of the balloon.

Why? Rubbing the tube results in a buildup of static charges on the outside of the glass. This outside charge attracts charged particles inside the tube. The phosphor powder coating the inside of the tube gives off light when struck by these charged particles.