

How Many Pennies?

Materials

- A clear drinking glass
- A roll of pennies (or about 50)
- Water
- (optional: dish soap)

Procedure

1. Fill the glass with water all the way to the rim, until it will hold no more.
2. Have one child at a time estimate how many pennies they can slip into the water without it spilling over. Let them try, adding one penny at a time until the water finally spills over.
3. For an optional activity, try adding a couple drops of dish soap in the water before adding the pennies. Does this change how many pennies can be added?

An amazing amount of pennies can be added to a full glass of water before it spills over, due to the surface tension of the water. All water molecules have a strong attraction for each other, but the molecules at the surface have no more molecules above them, so they are unusually attracted downwards, towards the available water molecules.

