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Science Behind Holding Bubbles Without Popping (For Schools)

Why don't bubbles pop when your hands are wet?

Soap bubbles are made from a **thin film of soapy water** with air trapped inside. Normally, bubbles pop when they touch **dry skin**, because the dry surface pulls water away from the bubble film.

When hands are covered in bubble solution:

- The bubble touches a surface that is already wet
- No water is drawn out of the bubble film
- The soap films join together instead of breaking

This allows bubbles to be **caught, held, and gently moved**.

Key Science Concepts:

- **Surface tension** – soap lowers water's surface tension, allowing bubbles to stretch
- **Thin films** – bubbles are made from layers of soapy water
- **Dry vs wet surfaces** – dry surfaces break bubbles, wet surfaces protect them

This makes hand bubbles an excellent **hands-on science activity** for exploring materials, forces, and states of matter.

Curriculum Links & Learning Outcomes

This activity supports learning in:

- Science (materials and their properties)
- Physics (forces and surface tension)
- STEM exploration
- Observation and prediction skills
- Outdoor and experiential learning

Suitable for:

- Early Years / EYFS
- Primary science lessons
- Science clubs and enrichment activities