

Floating and Sinking Investigation

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

An object floats when the water can provide enough upward force to support its weight. Material, shape and trapped air affect what happens; heavy objects do not always sink.

An adult supervises water use. Keep water shallow, wipe spills and keep it away from electricity. Use large objects; do not put anything in mouths.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Static Electricity Investigation

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

Rubbing can transfer electric charge between materials. A charged comb can attract nearby neutral paper by rearranging charges within it. Conditions such as humidity can affect the result.

Use a plastic comb and paper only. Keep scraps on the tray, away from mouths. Do not use mains electricity or rub anyone's hair without consent.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Paper Plane Investigation

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

A moving plane is affected by gravity and forces from the air. Shape, launch speed and angle can change its flight. Repeated trials help show whether a result is consistent.

Use blunt paper planes and a clear area. Launch away from people, faces and animals.
Provide a seated launch option.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Paper Chromatography

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

Water travels through the paper. Some ink components dissolve and move different distances. This can separate a mixture into visible bands; not every marker separates visibly.

Use washable water-based markers and water only. No solvents, tasting or permanent markers. An adult manages spills.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Surface Tension Investigation

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

Water molecules attract one another, creating surface tension. A carefully placed small object can be supported at the surface. Detergent lowers surface tension; results depend on placement.

Adult supervision. Keep the clip and detergent away from mouths and eyes. Wash hands after the activity and wipe spills.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Shadow Investigation

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

An opaque object blocks light travelling toward a surface. Moving the light or object changes the area where light is blocked and can change the shadow's size.

An adult checks the light. Never look directly into bright lights or point them at eyes. Do not use lasers or stare at the Sun.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Seed Germination Diary

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Educator guidance

A viable seed can begin growing when conditions such as water, oxygen and temperature are suitable. Stored food supports early growth. Some seeds need particular additional conditions.

An adult handles containers and checks for mould. Do not eat experiment seeds. Wash hands; discard mouldy materials without children handling them.

Predictions need not be correct. Observations must describe the actual test. Repeat or compare only when equipment and supervision are suitable.

Paper Bridge Challenge

Name / chosen name: _____

Use after the activity. Open responses can differ; accept drawings, spoken responses and supported writing.

Check the stated total or design constraint. Ten groups of ten equal 100. Different designs and participation methods are valid; record test evidence and one improvement.