

UNGLINGA HZDCAZKH030

UNGLINGA 70 Lab Experiments Science Kit Instruction Manual

Model: HZDCAZKH030

1. INTRODUCTION

The UNGLINGA 70 Lab Experiments Science Kit provides a comprehensive collection of tools and materials for conducting 70 diverse scientific experiments. This kit is designed to introduce fundamental concepts in Earth Science, Chemistry, Physics, and general scientific testing through hands-on activities. It encourages critical thinking and problem-solving skills.

2. SAFETY INFORMATION

Warning: Not suitable for children under 12 years. For use under adult supervision.

- Always conduct experiments under direct adult supervision.
- Read all instructions thoroughly before beginning any experiment.
- Wear safety goggles (included) to protect eyes during all experiments.
- Do not ingest any chemicals or materials from the kit.
- Wash hands thoroughly before and after handling materials.
- Keep all materials away from mouth, nose, and eyes.
- Ensure a clean, stable, and well-ventilated workspace.
- Dispose of waste materials according to local regulations and experiment instructions.

3. KIT CONTENTS

The UNGLINGA 70 Lab Experiments Science Kit includes a variety of tools and materials to perform the experiments. Please verify all components are present upon opening the kit.



Image: A comprehensive view of all components included in the UNGLINGA 70 Lab Experiments Science Kit, laid out on a white surface. This includes various beakers, test tubes, measuring spoons, safety goggles, a volcano mold, balloons, and experiment manuals.

Included Tools and Equipment:

1. Plastic test tubes and stand
2. Plastic beaker
3. Plastic funnel
4. Plastic stirring rod
5. Plastic measuring cups
6. Plastic measuring spoons
7. Plastic safety glasses
8. Plastic pipettes
9. Plastic volcano mold
10. Plastic straw
11. Plastic conical flask

12. Plastic bubble container
13. Plastic petri dish
14. White cloth piece for experiments
15. Paper manual (Experiments Manual)
16. Rubber bands
17. Rubber balloons
18. PH test paper
19. Sticker
20. Fruit Circuit accessories set (wires, iron piece)
21. Name badge
22. Transparent plastic piece

Included Experiment Powders and Liquid Materials:

1. Color change flowers (1g, 0.035oz)
2. Blue candle (5.3g, 0.187oz)
3. Dry erase marker
4. Rainbow ferris wheel beads (23g, 0.811oz)
5. Baking soda (50g, 1.76oz)
6. Citric acid (50g, 1.76oz)
7. Absorbent resin (20g, 0.705oz)
8. Crystal-growing powder (30g, 1.06oz)
9. Alum (40g, 1.41oz)
10. Red/yellow/green/blue pigment coloring (red coloring 10ml, yellow coloring 10ml, blue coloring 10ml, green coloring 10ml)
11. Brown iodophor (10ml)
12. White Fizzy tablet (6g, 0.212oz)
13. Crystal seed (10g, 0.353oz)

4. SETUP AND PREPARATION

Before starting any experiment, ensure the following:

1. **Read the Manual:** Carefully review the specific instructions for each experiment in the included manual.
2. **Clear Workspace:** Prepare a clean, flat, and stable surface. Cover the surface if necessary to protect it from spills.
3. **Gather Materials:** Collect all necessary kit components and any additional household items required for the chosen experiment (e.g., water, fruit, milk).
4. **Wear Safety Gear:** Always wear the provided safety glasses to protect your eyes.
5. **Adult Supervision:** Ensure an adult is present and actively supervising throughout the experiment.

5. OPERATING: EXPERIMENT GUIDE

The kit includes 70 experiments categorized into various scientific fields. The detailed steps for each experiment are provided in the accompanying Experiments Manual.

5.1 Earth Science Activities (10 Experiments)

Explore geological and natural phenomena with experiments such as:

- **Volcano Eruptions:** Simulate a volcanic eruption using the provided mold and chemical reactions.
- **Lava Flows:** Observe the movement of liquids to mimic lava.
- **Crystal Growing:** Grow your own crystals using the crystal-growing powder.
- **Tornado in a Bottle:** Create a vortex to understand atmospheric phenomena.
- **How Salt Comes From:** Investigate the process of salt formation.



Image: A collage showcasing various Earth Science experiments, including a red erupting volcano, growing crystals, a bottle simulating a tornado, and a depiction of lava flows.

5.2 Chemistry Experiments (25 Experiments)

Discover chemical reactions and properties of matter through experiments like:

- **Rainbow Ferris Wheel:** Observe color mixing and separation.
- **Wordless Book:** Explore invisible ink or color-changing reactions.
- **Water Blowing Balloon:** Demonstrate gas production and inflation.
- **Rainbow Rain:** Create colorful layers in water.

- **Artificial Snow:** Produce synthetic snow using absorbent resin.

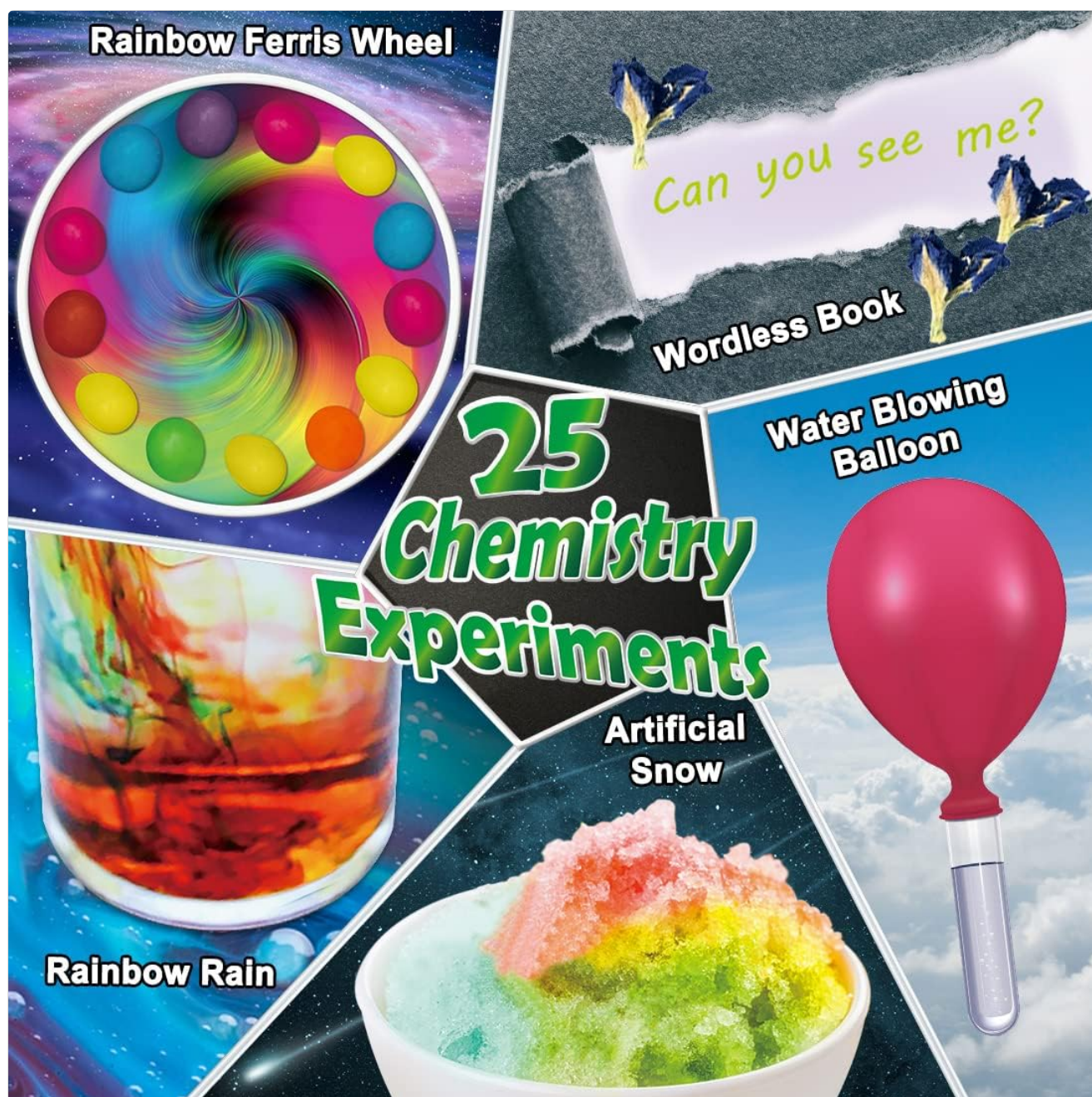


Image: A collage illustrating various Chemistry experiments, such as a colorful rainbow ferris wheel, artificial snow in a bowl, and a demonstration of rainbow rain in a glass.

5.3 Physics Experiments (20 Experiments)

Investigate principles of physics, including motion, energy, and states of matter:

- **Milk Animation:** Observe surface tension and color movement.
- **Fruit Circuits:** Generate electricity using fruits and wires.
- **Balloon Rocket:** Demonstrate Newton's third law of motion.
- **Trapped Ice Cubes:** Explore concepts of density and buoyancy.
- **Floating Drawings:** Experiment with drawing on water surfaces.

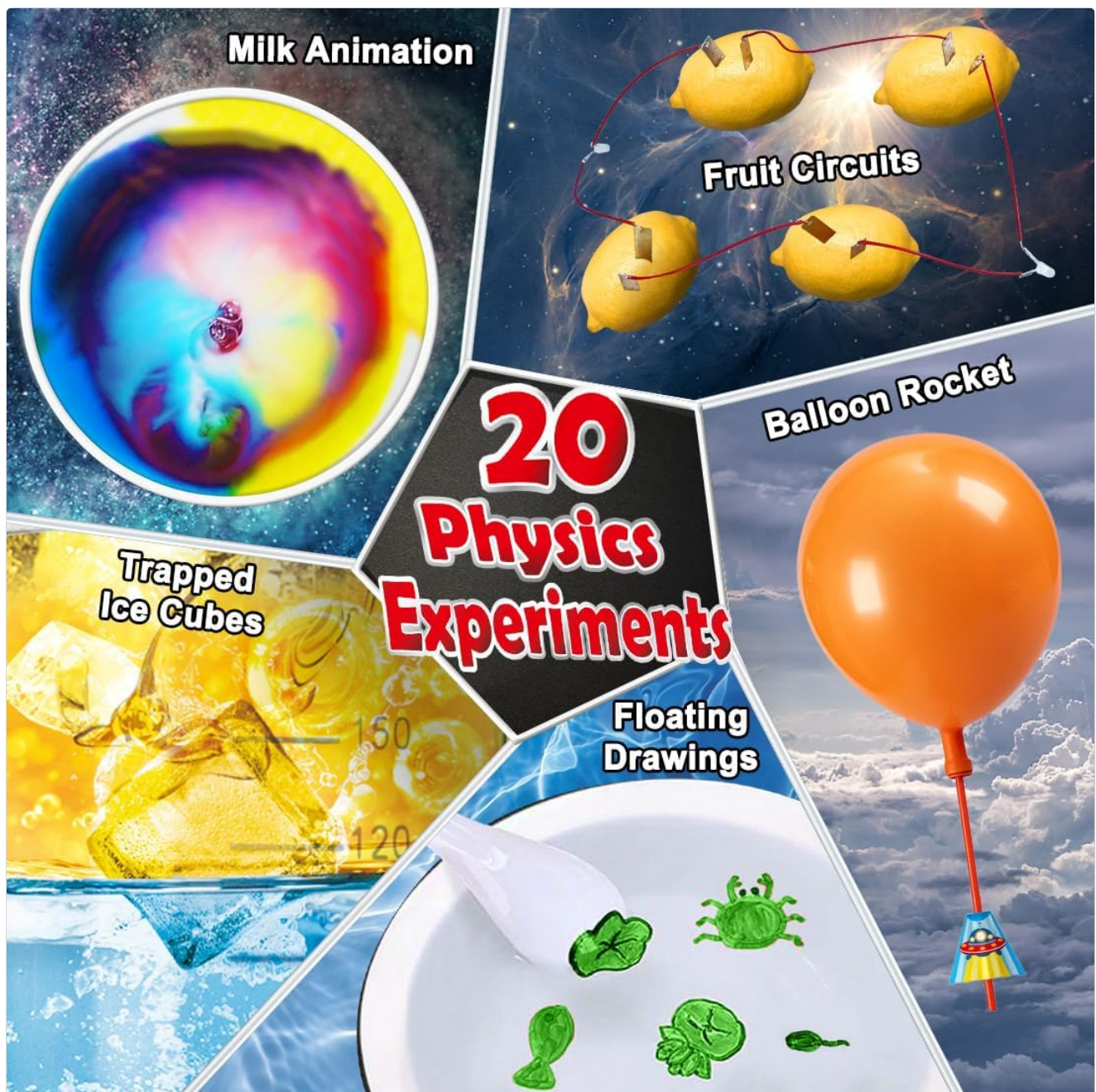


Image: A collage displaying various Physics experiments, such as lemons connected to form a fruit circuit, a balloon rocket, and a colorful milk animation.

5.4 Test Experiments (15 Experiments)

Conduct various tests to understand properties and reactions:

- **PH Test:** Use PH paper to measure acidity and alkalinity of liquids.
- **Rainbow Walking Water:** Observe capillary action and color mixing.
- **Spiral Paper with Candle:** Demonstrate convection currents.
- **Color Mixing Master:** Learn about primary and secondary colors.
- **Lemon and Iodine Volt:** Explore electrochemical reactions.



Image: A collage featuring various Test experiments, including PH test strips showing different color reactions, a demonstration of rainbow walking water, and a spiral paper rotating above a candle.

General Experiment Guidelines:

- Follow the step-by-step instructions in the manual precisely.
- Measure ingredients accurately using the provided tools.
- Observe and record your findings.
- Do not deviate from the instructions unless explicitly stated by an adult supervisor.

6. CARE AND MAINTENANCE

Proper care and maintenance will ensure the longevity of your science kit components.

- **Cleaning:** After each experiment, thoroughly clean all reusable plastic tools (beakers, test tubes, measuring spoons, pipettes) with warm water and mild soap. Rinse well and allow to air dry completely.
- **Storage:** Store all components in their original packaging or a designated storage container in a cool, dry place, away from direct sunlight and extreme temperatures.

- **Chemicals:** Keep all chemical powders and liquids in their sealed containers when not in use. Store them securely out of reach of young children.
- **Disposal:** Dispose of used or leftover experiment materials as instructed in the manual or according to local waste disposal guidelines.

7. TROUBLESHOOTING

If you encounter issues during an experiment, consider the following general troubleshooting steps:

- **Experiment Not Working:**
 - Double-check the instructions in the manual to ensure all steps were followed correctly.
 - Verify that the correct quantities of ingredients were used.
 - Ensure all components are clean and free from contamination.
 - Check if any required external materials (e.g., fresh fruit for circuits) are in good condition.
- **Missing Components:** Refer to the 'Kit Contents' section. If a component is genuinely missing, contact UNGLINGA customer support.
- **Unclear Instructions:** Review the specific experiment page in the manual. The manual is designed with clear illustrations. If still unclear, seek adult assistance.

8. PRODUCT SPECIFICATIONS

Feature	Specification
Brand	UNGLINGA
Model Number	HZDCAZKH030
Educational Objective	STEM
Material Type	Plastic
Manufacturer Recommended Age	12 years and up
Product Dimensions (L x W x H)	27.94 x 21.84 x 8.89 cm (11 x 8.6 x 3.5 inches)
Item Weight	1.04 kg
Batteries Required	No
Assembly Required	No

9. WARRANTY AND SUPPORT

Specific warranty information for the UNGLINGA 70 Lab Experiments Science Kit is not provided in the available product data. For any questions, concerns, or support regarding your kit, please refer to the contact information provided with your purchase or visit the official UNGLINGA brand store:

[Visit the UNGLINGA Store on Amazon](#)

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question