

Discovery 1019072

Discovery Magic Science Lab Instruction Manual

Model: 1019072

Brand: Discovery

INTRODUCTION AND OVERVIEW

The Discovery Magic Science Lab kit provides an engaging way for children aged 8 and up to explore scientific principles through 72 experiments. This kit combines hands-on chemistry and physics with magical effects, teaching core STEM concepts such as pH balance, air pressure, and the laws of motion and light. It includes materials for 32 in-kit experiments and instructions for 40 additional DIY activities using common household items.

Experiments cover a range of topics including reactions, illusions, crystals, slime, and light tricks. Users will learn to create glowing slime, color-changing liquids, crystal reactions, and more, all while understanding the science behind each phenomenon.



The Discovery Magic Science Lab kit box, illustrating the variety of experiments included.

SAFETY INFORMATION

WARNING: This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

Always ensure proper ventilation when conducting experiments. Wear safety goggles when instructed. Do not ingest any chemicals. Wash hands thoroughly before and after handling materials. Keep all components out of reach of younger children and pets. Adult supervision is required for all experiments.

WHAT'S INCLUDED

Your Discovery Magic Science Lab kit contains a variety of tools and ingredients to perform the experiments. Please check the contents against the list below and the instruction guide to ensure all

items are present.

- Test tubes
- Mixing bowl
- Pipette
- Measuring tools
- Glow slime mix
- Color tablets
- pH strips
- Optical lenses
- Illusion tools
- Crystal grow liquid
- Instruction Guide
- Various other ingredients and materials as specified in the instruction booklet.



A visual representation of the kit's contents, including various components and the instruction guide.

SETUP

1. **Unpack All Components:** Carefully remove all items from the kit box.
2. **Organize Materials:** Lay out all the included tools and ingredients. Refer to the 'What's Included' section of this manual or the kit's instruction booklet to identify each item.
3. **Prepare Your Workspace:** Choose a clean, flat, and stable surface for your experiments. It is

recommended to cover the surface with newspaper or a protective mat to prevent spills or stains. Ensure good lighting and ventilation.

4. **Read the Instruction Booklet:** Before starting any experiment, thoroughly read the corresponding instructions in the provided booklet. Pay close attention to safety warnings, required materials, and step-by-step procedures.
5. **Gather Household Items (if necessary):** For some experiments, especially the 40 bonus DIY activities, you may need additional common household items. Check the instruction booklet for a list of these items before you begin.

OPERATING / EXPERIMENTS

The Discovery Magic Science Lab offers 72 unique experiments designed to be both educational and entertaining. Each experiment is detailed in the included instruction booklet. Follow the steps carefully for optimal results and safety.

General Experiment Guidelines:

- Always perform experiments under adult supervision.
- Measure ingredients precisely as instructed.
- Observe and record your findings. The instruction booklet often provides explanations for the scientific principles at play.
- Do not deviate from the instructions unless explicitly stated for variations.

Examples of Experiments:

The kit allows you to explore various scientific phenomena, from chemical reactions to optical illusions.



LEARN ABOUT CHEMISTRY, PHYSICS & GEOLOGY

Science Kit Experiment 6 - Chameleon Jellyfish 15 mins

From Kit

- Red Cabbage Powder
- Baking Soda
- Pipette
- Scoop
- Measuring Cup

From Home

- Water
- Vegetable Oil
- Clear Cup x2

Instructions

1. Fill 1 cup ¾ of the way with water. Next, add 2 large scoops of baking soda and 5 large scoops of oil into your cup. Mix well.
2. Get another cup and add 20 ml of water and 5 g of red cabbage powder. Mix well.
3. Grab your pipette and fill it with the red cabbage mixture. Slowly start adding drops to the other cup.
4. Watch your jellyfish change colors!

The Science Behind This
Jellyfish do not change color. The color change that we observe in an aquarium is the effect of light.

Did You Notice?
The jellyfish moves slowly through the oil, but fast through the water. This is because the oil is thick, making it more difficult to move through.

Recreate At Home
How to Make Red Cabbage Powder:
1. Ask an adult to help thinly cut a red cabbage and place on an oven safe pan.
2. Ask an adult to place pan in oven at 135 degrees Fahrenheit for 8-12 hours.
3. Once the red cabbage is dried, blend the dry pieces into a fine powder.

Science Kit Experiment 7 - Aqua Impervious

From Kit

- Aerogel
- Mixing Bowl
- Measuring Cup

From Home

- Water

Instructions

1. Fill 2 mixing bowls with 100 ml of water. Add the Aerogel into 1 of the mixing bowls and mix well. Dip your finger into the aerogel, making sure it is fully coated.
2. Then, dip your finger in the water. Notice how it does not get wet?

Did You Notice?
It does not matter how long you hold your finger in the water, it will not get wet! This is because the nonpolar molecules are constantly rejecting the water.

Recreate At Home
*Try this out by replacing aerogel

Science Kit Experiment 8 - Vitrus Vanesco

From Kit

- Glass Test tube
- Measuring Cup

From Home

- Vegetable Oil

Instructions

1. Fill the measuring cup with vegetable oil until it reaches the 50ml mark.
2. Add the glass test tube into the measuring cup. Pour vegetable oil into the test tube. The test tube will disappear!

The Science Behind This
When oxygen is still in the test tube, it causes the test tube to bend light differently than the oil. When oil is added, it bends light making it disappear.

An example page from the instruction manual, detailing steps for experiments like 'Chameleon Jellyfish' and 'Aqua Impervious'.



**WATERPROOF
YOURSELF**



**VANISHING
TEST TUBE**

72
SCIENCE
EXPERIMENTS



**GLITTER
POTION**



**SECRET
MESSAGES**

Visual examples of experiments such as 'Waterproof Yourself', 'Vanishing Test Tube', 'Glitter Potion', and 'Secret Messages'.



Further examples of experiments including 'Invisible Objects', 'Bubble Catcher', and 'Exploding Potion'.

Instructional Video:

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An official video demonstrating various experiments from the Discovery Magic Science Lab kit, provided by the manufacturer, MerchSource, LLC.

MAINTENANCE

Proper maintenance of your science kit will ensure its longevity and readiness for future experiments.

- **Cleaning Tools:** After each experiment, thoroughly clean all reusable tools (test tubes, pipettes, mixing bowls) with warm water and mild soap. Rinse well and allow them to air dry completely before storing.
- **Storing Chemicals:** Store all remaining chemical ingredients in their original, sealed containers in a cool, dry place, away from direct sunlight and out of reach of children. Do not mix unused chemicals.
- **Disposal:** Dispose of waste materials according to local regulations. Do not pour chemicals

down the drain unless specifically instructed and safe to do so.

- **Kit Storage:** Keep the entire kit organized in its original box or a designated storage container to prevent loss of components.

TROUBLESHOOTING

If you encounter issues while performing experiments, consider the following common troubleshooting steps:

- **Experiment Not Working:**
 - Re-read the instructions carefully. Ensure all steps were followed precisely.
 - Check measurements. Even small deviations can affect results in chemical reactions.
 - Verify the order of adding ingredients.
 - Ensure the environment (temperature, humidity) is suitable if specified.
- **Missing or Damaged Components:**
 - Check all packaging thoroughly. Small items can sometimes be overlooked.
 - Contact customer support (see 'Warranty and Support' section) if components are genuinely missing or damaged upon arrival.
- **Safety Concerns:**
 - If any irritation or adverse reaction occurs, stop the experiment immediately and consult a medical professional if necessary.
 - Always prioritize safety and adult supervision.

SPECIFICATIONS

Feature	Detail
Brand Name	Discovery
Model Number	1019072
UPC	840397510542
Manufacturer Minimum Age	8 years (96 months)
Educational Objective	STEM
Theme	Chemistry, Magic
Material Type	Plastic

Item Dimensions (L x W x H)	12.5 x 3 x 9 inches
Item Weight	2 Pounds
Unit Count	72.0 Count (experiments)
Assembly Required	No

WARRANTY AND SUPPORT

For specific warranty information, please refer to the packaging or the manufacturer's official website. If you have questions about the product, missing parts, or need technical assistance, please contact Discovery customer support. Contact details are typically found on the product packaging or within the instruction booklet.