

## Discovery 1017264

# Discovery Dragon & Unicorn Crystal Grow Kit Instruction Manual

Model: 1017264 | Brand: Discovery

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## INTRODUCTION

Welcome to the exciting world of crystal growing with your Discovery Dragon & Unicorn Crystal Grow Kit! This kit provides a hands-on STEM experience, allowing you to observe the fascinating process of crystallization as you transform mythical figures into dazzling crystal-covered models. Please read these instructions carefully before beginning to ensure a safe and successful crystal growing adventure.

## SAFETY INFORMATION

- **Adult Supervision Required:** This kit contains chemicals and requires handling hot water. Adult supervision is essential for children under 12 years old.
- **Chemical Handling:** Avoid direct contact with crystal growing powder and solution. Wash hands thoroughly after handling. Do not ingest any components of the kit.
- **Hot Water:** Exercise extreme caution when boiling and pouring hot water. Use heat-resistant gloves or oven mitts if necessary.
- **Ventilation:** Work in a well-ventilated area.
- **Eye Protection:** Consider wearing safety goggles to protect eyes from splashes.
- **Surface Protection:** Protect your work surface with newspaper or a plastic sheet to prevent staining.

## WHAT'S INCLUDED

Your Discovery Dragon & Unicorn Crystal Grow Kit contains the following items:

- Dragon Figure
- Unicorn Figure
- Grow Tank
- Bottle of Glue
- Brush
- Stirring Spoon
- 4 Spikey Crystal Compound Packs



Figure 1: All components included in the Discovery Crystal Creatures kit.

## SETUP & CRYSTAL GROWING INSTRUCTIONS

Follow these steps carefully to grow your crystals:

1. **Prepare Figures:** Apply the provided glue to the areas of the dragon and unicorn figures where you want crystals to grow. Use the brush for even application.



Figure 2: Step 1 - Apply crystal growing compound to the figures.

2. **Add Crystal Compound:** Sprinkle the crystal growing compound onto the glued areas of the figures. Ensure good coverage.
3. **Boil Water:** An adult should carefully boil water in a pot.
4. **Prepare Solution:** Carefully pour the boiling water into the grow tank. Then, add the remaining crystal growing powder from the packs into the hot water in the tank. Stir until the powder is completely dissolved.
5. **Submerge Figures:** Carefully lower and submerge your prepared dragon and unicorn figures into the crystal growing solution in the tank. Ensure they are fully immersed.



## Step 2

Dip in the grow tank



Figure 3: Step 2 - Dip the figures into the grow tank.

- 6. Observe Growth:** Place the grow tank in a stable location where it will not be disturbed. Over the next 7-10 days, observe as crystals begin to form and grow on your figures.
- 7. Remove & Display:** Once the crystals have fully grown to your satisfaction (typically 7-10 days), carefully remove the figures from the solution. Allow them to dry completely before displaying your crystal creatures.



Figure 4: Step 3 - Grow and display your mythical creature.

## Watch the Crystal Growing Process

Video 1: A demonstration of the crystal growing process for the Dragon and Unicorn figures, showing each step from applying glue to submerging the figures and observing crystal formation.

## OPERATING (CRYSTAL GROWTH PROCESS)

The crystal growing process is a scientific phenomenon where dissolved crystal compound particles begin to solidify and attach to the figures, forming larger, visible crystals. The initial application of glue and crystal compound provides nucleation sites for the crystals to start growing. The hot water helps dissolve a larger amount of the compound, and as the solution cools, the compound becomes less soluble, causing it to precipitate out and form crystals. The growth rate and final appearance of the crystals can vary based on environmental factors such as temperature and humidity.

## MAINTENANCE

Once your crystals have fully grown and dried, they require minimal maintenance. Keep them in a dry environment away from direct sunlight or extreme temperature changes to preserve their structure. Avoid handling the crystals excessively, as they can be delicate. If dust accumulates, gently brush it off with a soft, dry brush.

## TROUBLESHOOTING

- **No Crystal Growth:**
  - Ensure the water was hot enough to fully dissolve the crystal powder.
  - Verify that the figures were properly coated with glue and crystal compound.
  - Check that the figures are fully submerged in the solution.
  - Allow sufficient time (7-10 days) for growth.
- **Glue is Dry:** If the included glue is dry, a small amount of craft glue or super glue can be used as an alternative to adhere the initial crystal compound to the figures. Ensure it is non-toxic and suitable for children's crafts if children are handling it.
- **Crystals are Small or Sparse:** This can be due to insufficient crystal compound, water that was not hot enough, or environmental factors. Ensure all powder is dissolved and the solution is concentrated.
- **Crystals Break Easily:** Crystals are naturally delicate. Handle them with care. Once dry, they are more stable but can still break if dropped or handled roughly.

## SPECIFICATIONS

Feature	Detail
Model Number	1017264
Brand	Discovery
Age Range	8+ Years
Educational Objective	STEM (Science, Technology, Engineering, Math)
Material	Plastic (figures)
Item Dimensions	4 x 4 x 4.3 inches
Included Components	Dragon, Unicorn, Crystal Grow Solution and Tools

## WARRANTY & SUPPORT

For any questions, concerns, or support regarding your Discovery Dragon & Unicorn Crystal Grow Kit, please refer to the contact information provided on the product packaging or visit the official Discovery website. Specific warranty details are typically included with the product at the time of purchase.