

Barbie™

CRYSTAL GEOLOGY SET

ADVENTURES IN MINERALOGY

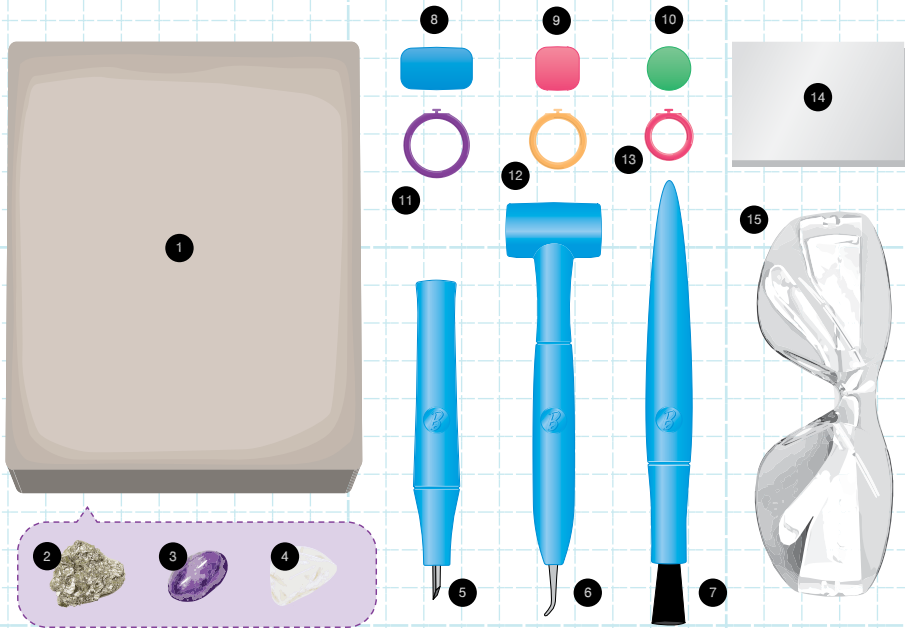


Storybook and Experiment Manual

THAMES & KOSMOS



Kit Contents



✓ No.	Description	Quantity	Item No.
○ 1	Plaster block	1	719 130
○ 2	Pyrite specimen (inside block)	1	719 143
○ 3	Amethyst specimen (inside block)	1	719 141
○ 4	Quartz specimen (inside block)	1	719 142
○ 5	Chisel tool	1	775 284
○ 6	Hammer/pick tool	1	775 283
○ 7	Brush tool	1	775 285
○ 8	Large mounting plate*	1	719 139
○ 9	Medium mounting plate*	1	719 138
○ 10	Small mounting plate*	1	719 137
○ 11	Large ring*	1	719 136
○ 12	Medium ring*	1	719 135
○ 13	Small ring*	1	719 134
○ 14	Sheet of adhesive double-sided tape	1	719 140
○ 15	Toy safety glasses	1	719 129

For some experiments, you will also need: *table salt, tablespoon, water, pencil, small glass jar (1 cup volume), string, cooking pot, stove, spoon, paper towel, newspaper, cup, ruler, flashlight, ceramic cup, scissors*

*Note: Colors of rings and plates will vary.

“Wow, look at these beautiful rocks that were deposited inside that sedimentary rock,” Nikki said. “But how do we know what they are?”

“Let’s do some experiments to find out,” replied the geologist.

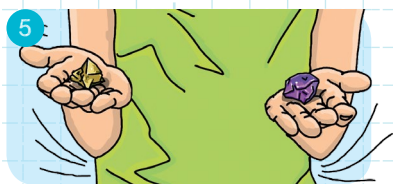
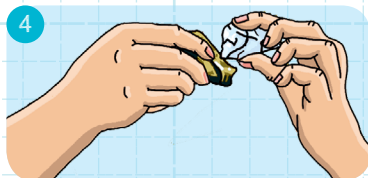
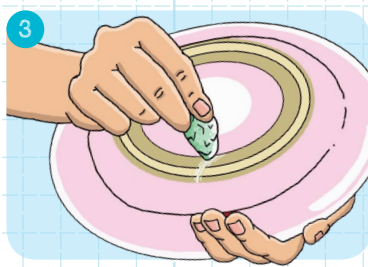
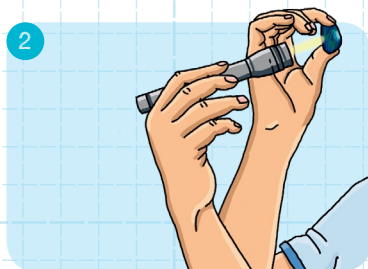
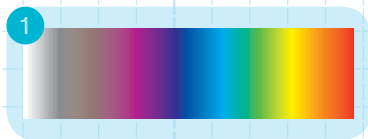
The geologist proceeded to show the students the various mineral identification tests: color, luster, hardness, streak, cleavage/fracture, specific gravity, acid test, and magnetism test.



EXPERIMENT

Mineral Identification Tests

- 1 Color:** What is the color of the surface of the mineral?
- 2 Luster:** What is the quality of the light reflected from the surface? Is it shiny, dull, or metallic?
- 3 Streak:** Scratch the mineral on an unglazed ceramic surface, like the bottom of a plate. If the mineral leaves behind a streak, the color of the streak can be used to identify it.
- 4 Hardness:** A mineral’s resistance to scratching is measured on a scale of 1 to 10, with the most easily scratched minerals, like talc and gypsum at 1 and 2, and the hardest minerals, like diamond, at 10.
- 5 Specific Gravity:** This is a measure of the density of a mineral, or its weight per a specific volume. Compare the weight of two minerals in your hand. Which is heavier?
- 6 Acid Test:** Some minerals will react to acids, like vinegar, and fizz when vinegar is dripped on them.
- 7 Magnetism Test:** Some minerals are magnetic and will attract iron.





When the girls finished identifying all of the minerals, they joined their classmates, who were still hunting for rocks. Nikki started excavating a new area of dry, beige-colored stone.

“I’ve found a really weird looking rock in here,” said Nikki. “Come look at this.”



“That’s not a rock – that’s a fossil!” exclaimed the geologist excitedly. “It looks like you’ve found a dinosaur bone!”

“Did dinosaurs really live around here?” asked Barbie.

“Yes, a long time ago,” explained the geologist. “And when they died, their bodies were covered in sediment. Over a long period of time, the softer minerals of their bones eroded away and were replaced with harder rock crystals. These stayed inside the Earth for a long time – until they came back up to the surface.”

“Let’s take this bone to the natural history museum and see if we can identify it,” the teacher said.

“And later we can take these other minerals home and make something cool out of them!” Nikki said.

THE END