

## **DEAR PARENTS**

Please provide your child with assistance and support when excavating the mineral or fossil Read the instructions together before starting and follow them carefully. Please ensure that small children are not allowed to handle any of the parts of this kit, especially not the plaster pieces that remain after the excavation.

WARNING! Not suitable for children under 5 years. For use under adult supervision. Read the instructions before use, follow them and keep them for reference.

Do not inhale plaster dust or bring it into contact with mouth or eyes. Wash hands after use!

Keep the packaging and instructions as they contain important information.

We reserve the right to make technical changes.

## **HERE'S HOW**

Your excavation kit consists of a chisel tool as well as a plaster block that contains a mineral or fossil inside it. You will also need a cup of water. Before you begin excavating, set up your work area: Spread a few layers of newspaper on a tabletop. As pieces of plaster might fall on the floor and water might spill, make sure that it won't matter if the surrounding area gets a little messy.



Place the block in the cup of water for a few minutes. The plaster material to be excavated will soften. The longer it stays in the water, the softer the material becomes and the easier it is to dig it out. At first, you can only soften the outermost layer. Once you've removed that layer, you can soften the inner layers and keep working toward the center of the block.



Dig your way to the mineral or fossil inside the block by using the chisel to scrape away at the plaster. As soon as you hit the stone start working very carefully and gradually remove it from the final layers of plaster. As a final step, you can completely remove the mineral or fossil from the last bits of plaster residue by holding it under running water. Then rinse it well.

You can find out what the mineral or fossil in your block is by comparing it with the profiles on the back side. There are a total of 12 different minerals and fossils. Collect them all!



If any parts of this kit are defective, please contact Thame support@thamesandkosmos.com or call 1-800-587-2872 es & Kosmos customer service. Email

Support age transferences. 1<sup>4</sup> Edition 2022 2022 Francish-Kosmos Verlags-GmbH & Co. KG, Stuttgart, Germany Di 2022 Francish-Kosmos Verlags-GmbH & Co. KG, Stuttgart, Germany Di 2022 Francish-Kosmos Verlags-GmbH & Co. KG, Stuttgart, Germany Di 2022 Francish-Kosmos Verlags-GmbH & Co. KG, Stuttgart, Germany reproductions, translations, microfilming, and storage and processing in electronic systems and networks. We not guarantee that all material in this work is free from copyright or other protection. Project management and text: Dr. Mark Bachofer Technical product development: Elena Ryvkin Photos, Layout, and typesetting: Friedrich Werth, Horb Printed in Thalland 1<sup>4</sup> English Edition with two languages © 2023 Thames & Kosmos, LLC, Providence, RI, USA Thames & Kosmos' is a registered trademark of Thames & Kosmos, LLC. Editing: Ted McGuire, Additional Graphics and Layout: Dan Freitas and Mark Geary: Translation: David Gamon Distributed in North America by Thames & Kosmos, LLC. Providence, RI 02903; Phone: 800-587-2872; Web: www.thamesandkosmos.com

www.thamesandkosmos.com We reserve the right to make technical changes

## AMETHYST

Amethyst is a purple gemstone of the quartz variety. Particularly beautiful forms can be found inside the cavities of round rock

formations known as geodes.

#### **AVENTURINE**

The green stone aventurine is also a type of quartz. It is often used for jewelry, while larger pieces of it can be turned into tabletops, boxes, or vases



## **QUARTZ**

Quartz is the crystalline form of silicon dioxide, of which many types of rocks and minerals are composed. In its pure form without inclusions (a material trapped inside a mineral during its formation), quartz is transparent and is called clear quartz or rock crystal. If air or other substances become trapped inside it, quartz can be milky or colored.

# ROSE **QUARTZ**

This quartz is a milky pink color due to the inclusion of a reddish substance. It is often used for jewelry and art objects.

## **RED JASPER**

Jasper is also a type of quartz. There are many different color variations, often banded or flecked with different colors.

The name is Greek and means speckled."





### PYRITE

PISOLITE

formed as layers around a core which is

usually a grain of

calcium

carbonate.

This mineral is often called fool's gold. It consists of iron and sulfur that forms cube-shaped or polygonal crystals with a metallic sheen.

This limestone contains many globular inclusions, called "pisoids" (pea-like structures) that have



# DIORITE

Diorite is a dark to black rock that often has light-colored patterns in it. It is formed by the slow cooling of magma. Today it is often used in construction and roads.



#### **SCLERACTINIA**

Coral reefs are formed from the limestone skeletons of marine animals that died long ago. The star-shaped structures of these primeval underwater colonies have been well preserved in the fossil record.



Petrified wood forms when silicic acid accumulates in a dead tree trunk or branch and becomes

crystallized. Petrified wood structures are often so well preserved that the type of tree that the stone comes from can be identified.



# **CRINOIDS**

Sea creatures like sea lilies and feather stars are called crinoids. Some thick layers of limestone from 200

million years ago consist almost entirely of deposits of these animals. Their stems and arms appear as ringshaped structures in the fossils.



Sea lilies — scientifically known as – are echinoderms that are crinoids related to sea urchins and starfish. They attached themselves to the seafloor with their long columnar stalks which resembled stacks of discs. There . are about 700

living species of crinoids.