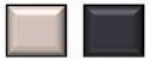
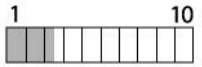
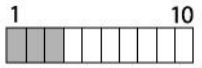
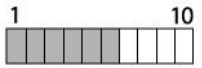
ROCKCHECK

E-LEARNING ABOUT IDENTIFICATION, CLASSIFICATION AND USE OF ROCKS

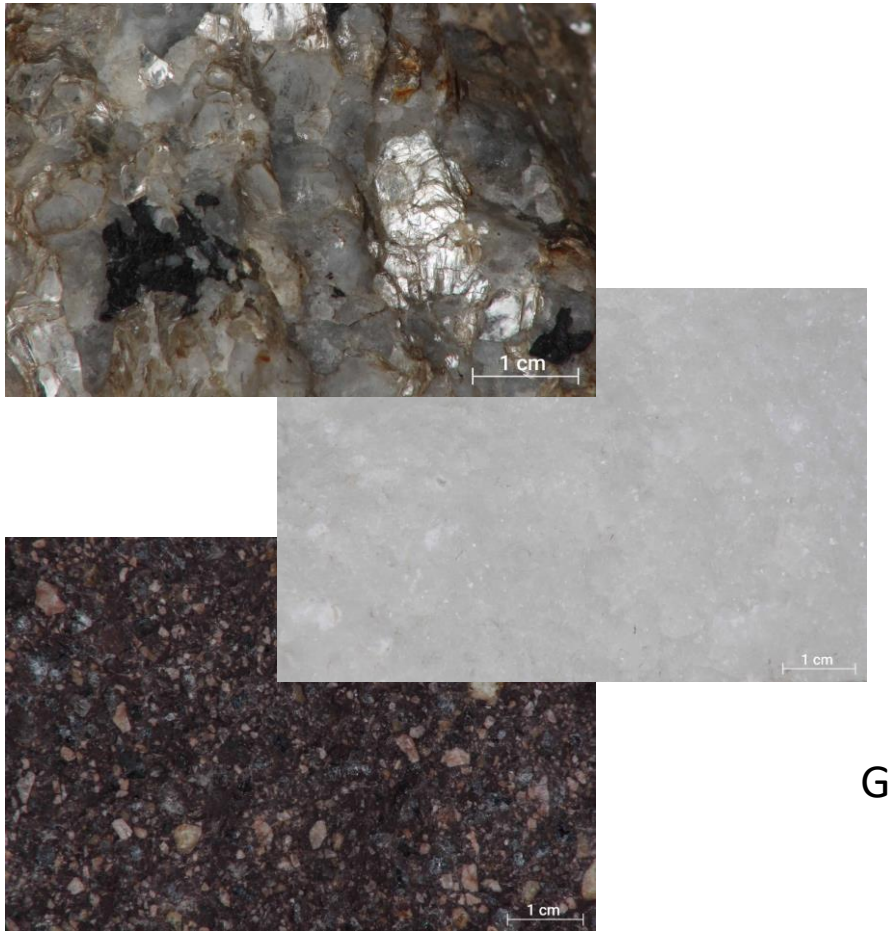
This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation

WHAT ARE MINERALS?

- Naturally occurring, homogeneous solid
- Constant **chemical composition**, an **ordered crystal structure**, certain morphological forms and properties
- More than 4.000 different minerals
- Only some of them are rock forming minerals - **basic building blocks of rocks**
- They are **identified according to their characteristics** and are very important for rocks identification

ROCKCHECK	IMPORTANT CHARACTERISTICS	COLOR	RELATIVE HARDNESS	OCCURRENCE IN ROCKS
MUSKOVITE and BIOTITE	Minerals with thin sheets shape. Muskovite is transparent and is generally silver colored, while biotite is dark and opaque.			
CALCITE and DOLOMITE	Calcite reacts rapidly with diluted 10% HCL, dolomite does not.			
AMPHIBOLE and PYROXENE	These two minerals are hard to distinguished. They have prismatic shape and build many igneous and metamorphic rocks.			
FELDSPAR	Mineral with rectangular angles and pearly glow that makes up some of the most common rocks.			
OLIVINE	Transparent to translucent mineral with a glassy glow.			
GARNET	Mineral with spherical to cubic shape.			
QUARTZ	One of the most common minerals. It is usually seen in rocks as transparent to translucent minerals, with a glassy glow.			

HOW DO WE RECOGNIZE MINERALS IN THE ROCK?



- **Shiny surfaces** (reflecting light)
- Some mineral grains are visible to the naked eye, others not (visible only under microscope)
- Same or different colors
- Same or different sizes

Difference between mineral and sedimentary grains?

Grains with flat, shiny surfaces.

Grains that look like sand, gravel or pebbles - they usually have rounded surfaces.

ROCKS and MAIN GROUPS

- Solid substance with more or less **constant mineral and chemical composition**
- The **earth crust** (lithosphere) consists of different types of rocks
- According to their formed processes rocker **classified into three main groups**:

1 **IGNEOUS**

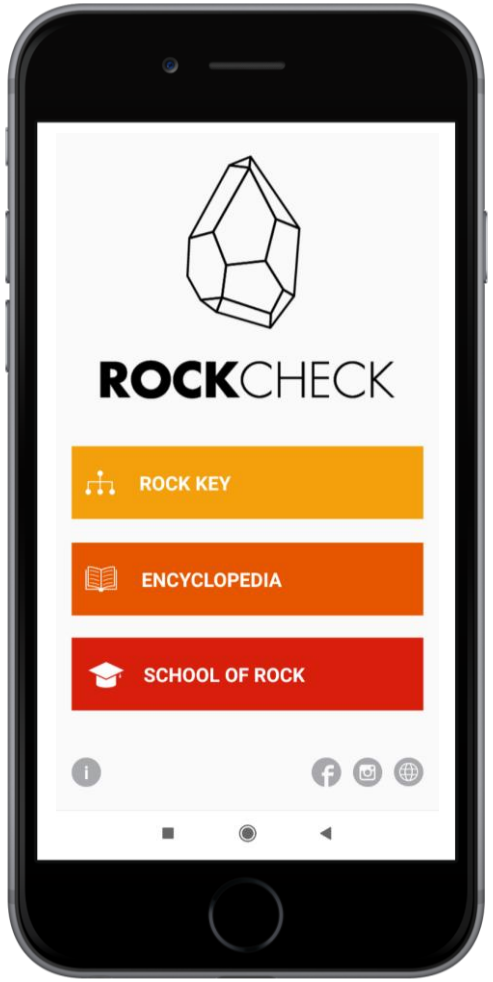
2 **METAMORPHIC**

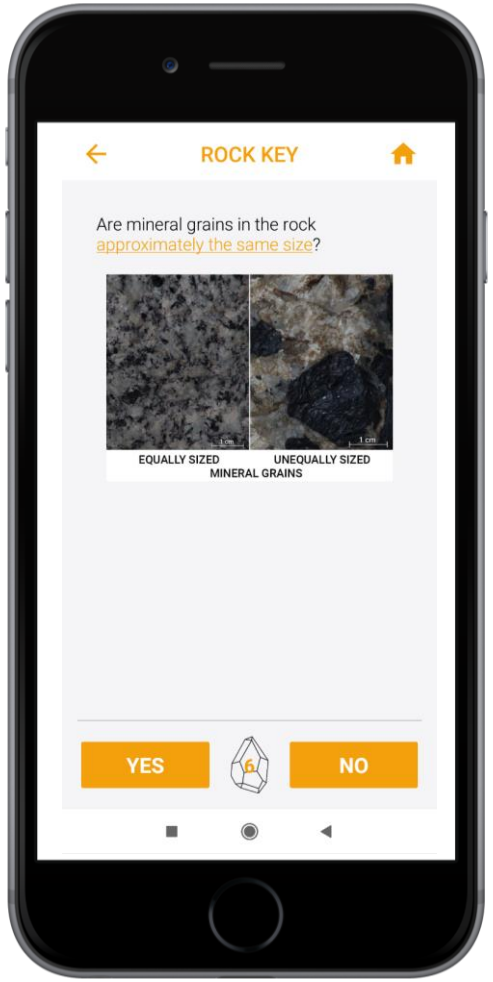
3 **SEDIMENTARY**

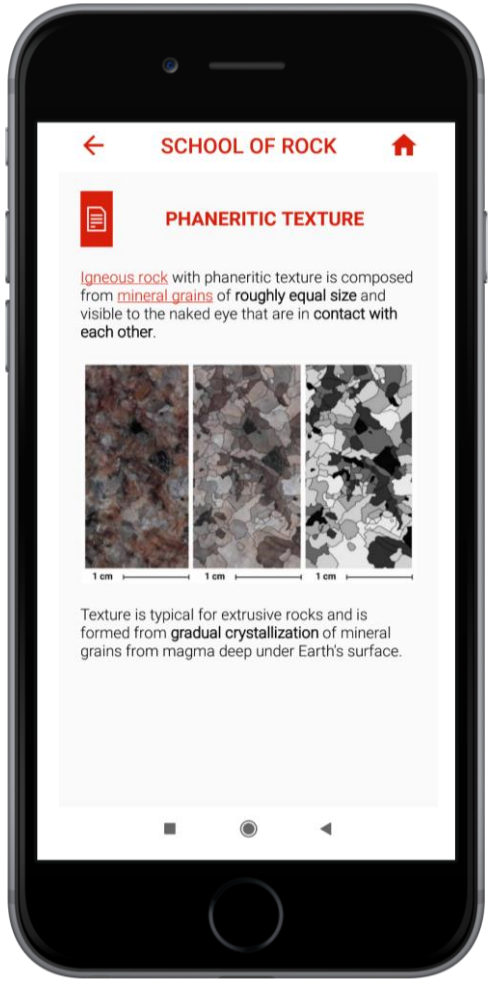
THE ROCK CYCLE

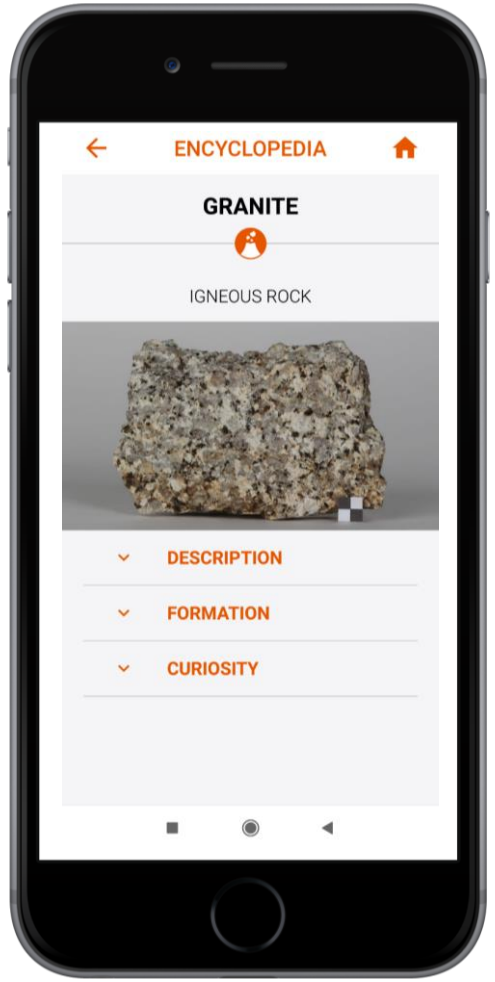
- **Rock cycle** describes how due to various processes one group of rocks turns into another one.
- It is an **overview of the formation and alteration of rocks** on and below the Earth‘s surface.

ROCKCHECK APPLICATION

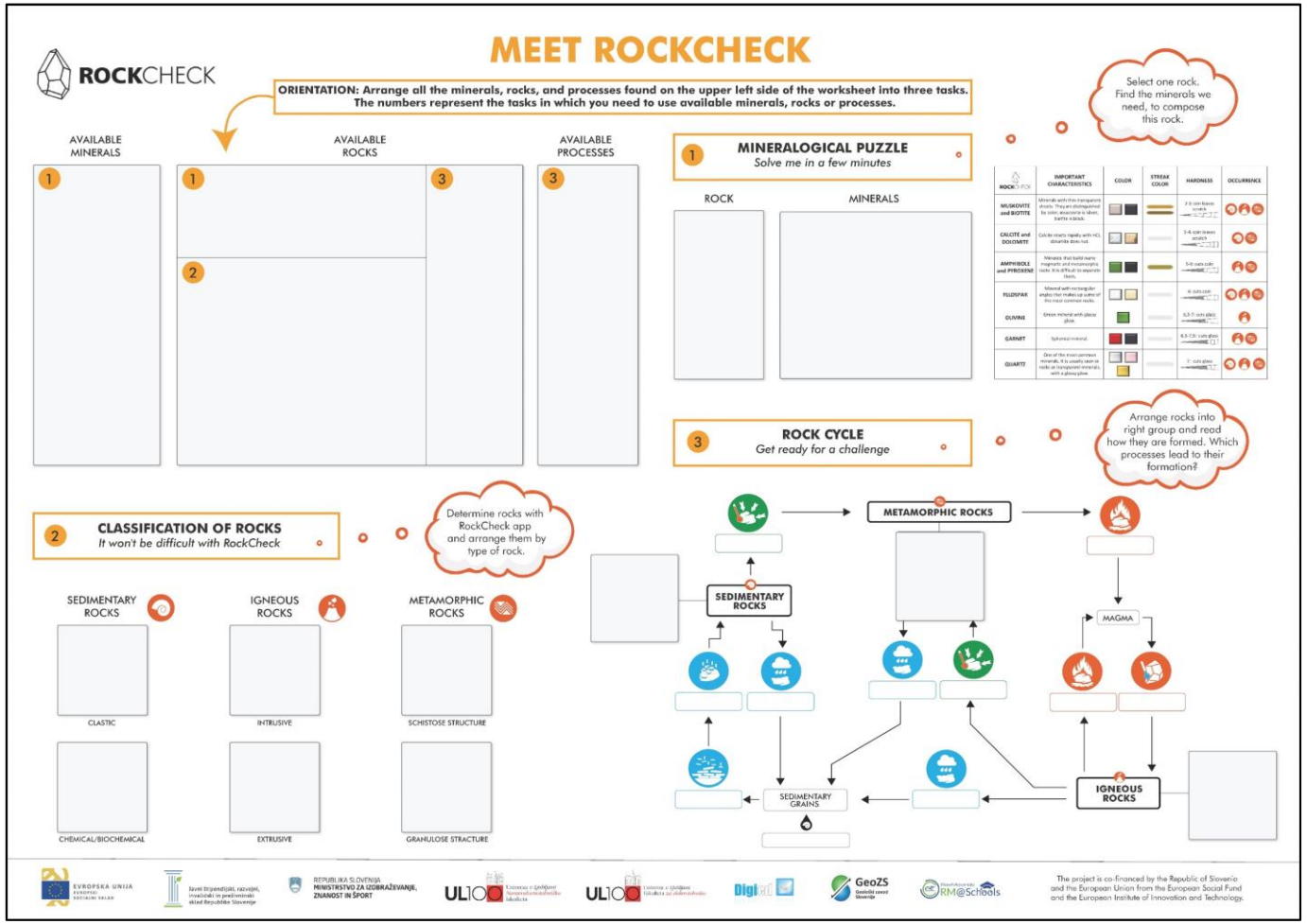






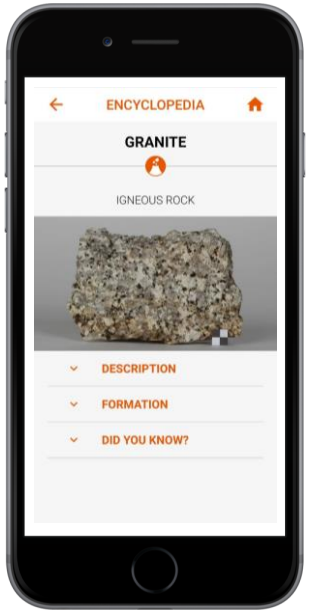


HOW TO WORK IN MODULE 1 AND 2



Questions/Quiz

1. **Sandstone and quartz sand are important raw materials. What do we use quartz sand for?**
2. **Limestone is a very useful rock. We use it for something that helps us get from one floor to another. What is it?**
3. **What do we use clay for in cosmetics?**
4. **Pumice is used a lot for beauty cleaning products. What does it help us get clean?**



ROCKCHECK

- FB: KamenCheck
- Google play

Supported by:

eit RawMaterials

Connecting matters

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