



**Rocks and Minerals
Review Note Cards**

ROCKS

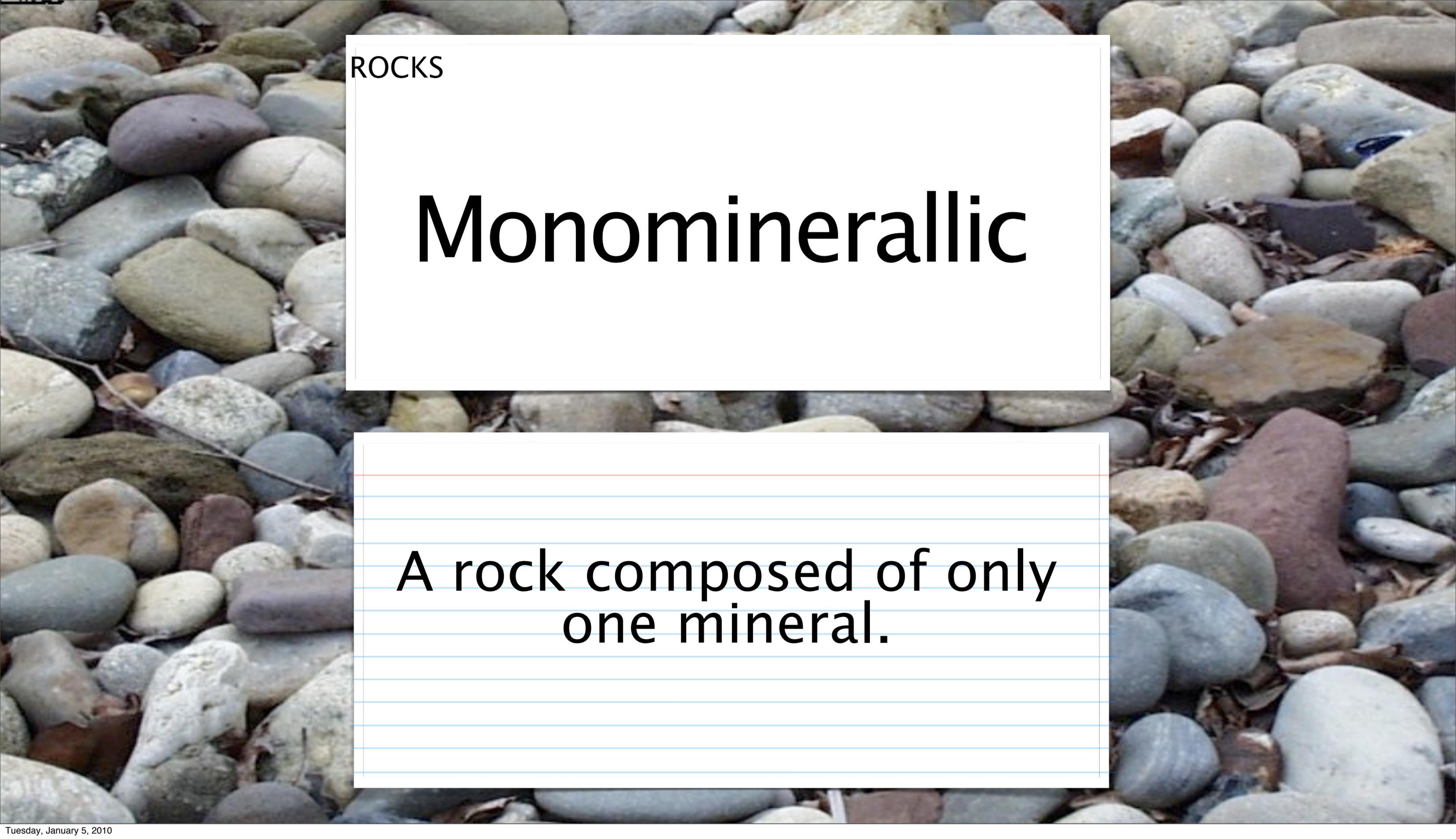
Minerals

Naturally occurring, Inorganic
Solid that has a definite
chemical composition

ROCKS

Minerals

Building blocks of rocks



ROCKS

Monominerallic

A rock composed of only
one mineral.

ROCKS

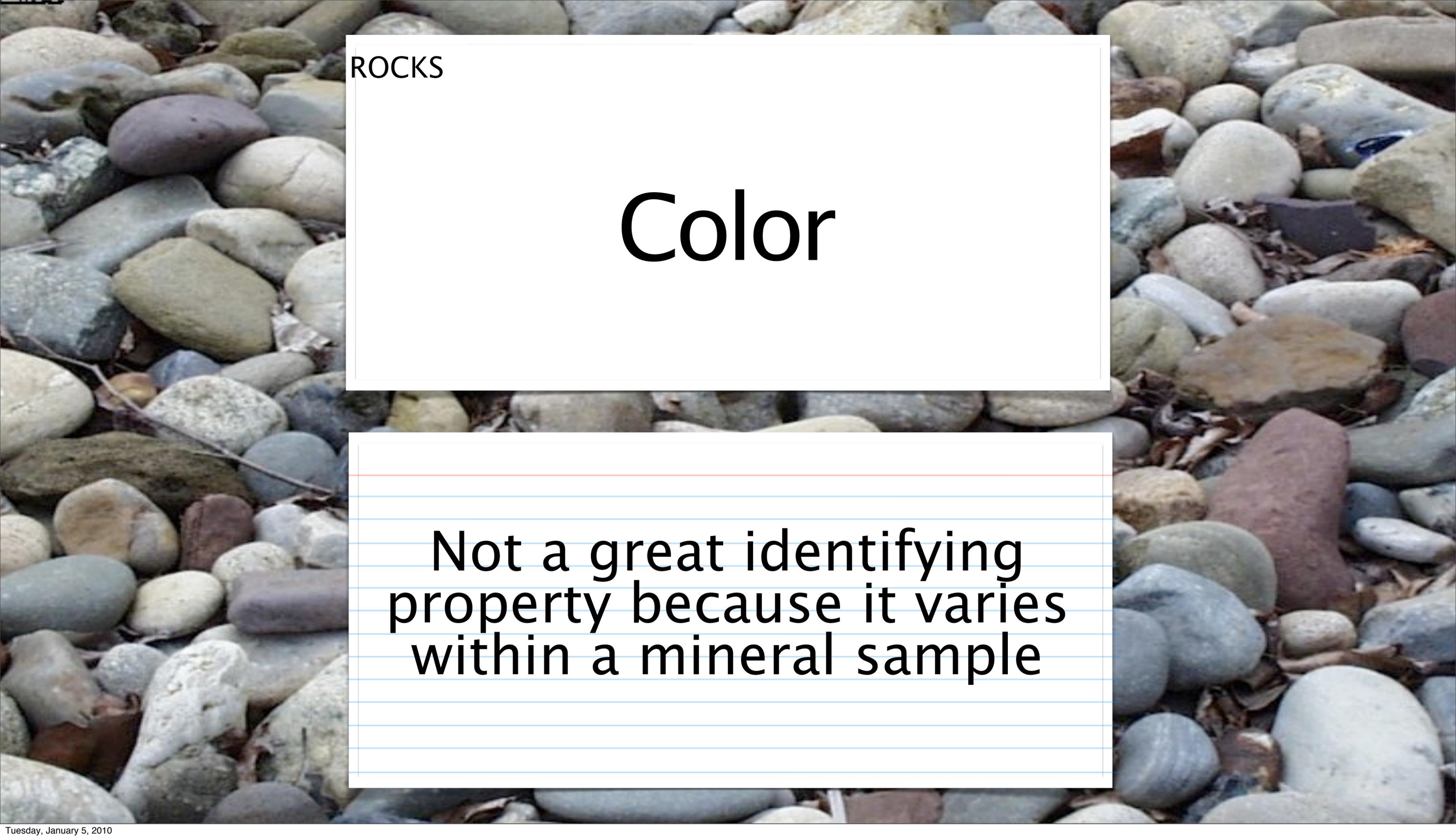
Polyminerallie

A rock composed of more than one mineral.

ROCKS

Internal Arrangement of Atoms

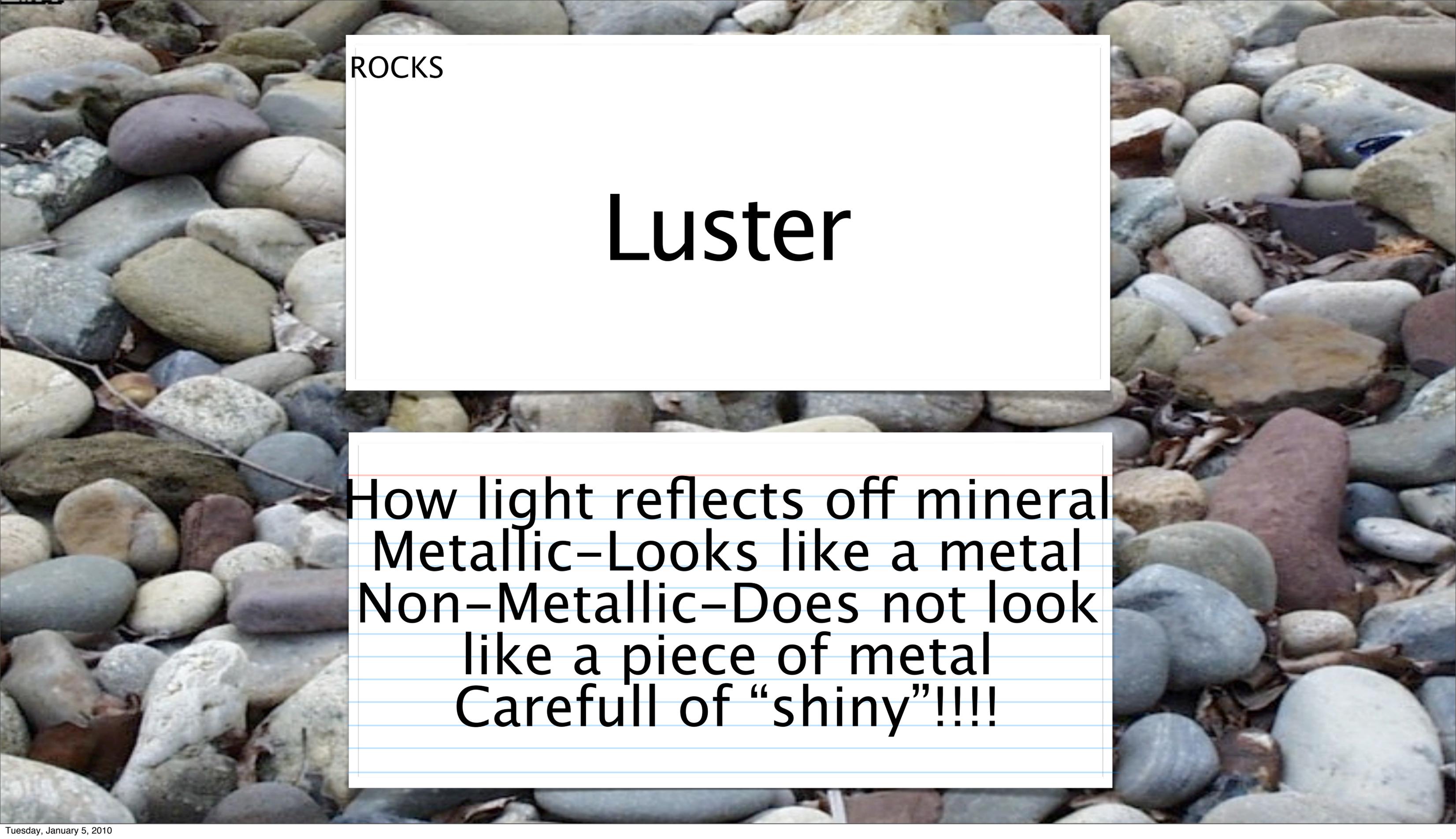
Gives Mineral it's own
characteristics



ROCKS

Color

Not a great identifying property because it varies within a mineral sample



ROCKS

Luster

How light reflects off mineral
Metallic–Looks like a metal
Non–Metallic–Does not look
like a piece of metal
Carefull of “shiny”!!!!

ROCKS

Streak

Rubbing a mineral along a
porcelain tile...powdered
form of mineral

ROCKS

Hardness

Scratching a mineral against a
glass plate

Scratches—harder than glass

No Scratch—Softer than glass

Glass Hardness: 5.5

ROCKS

Cleavage

Mineral breaks along a flat surface

ROCKS

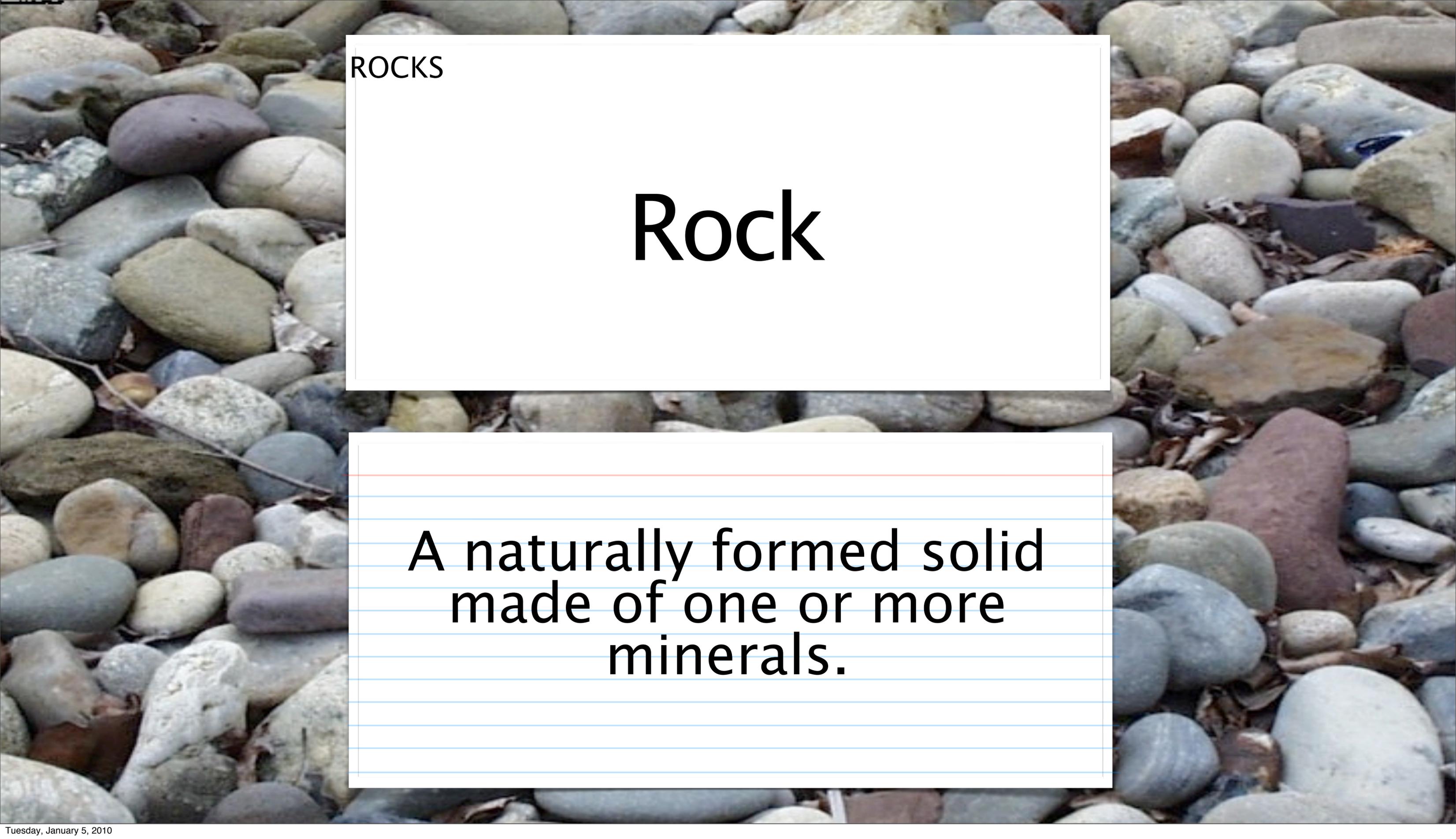
Fracture

Mineral breaks along an uneven surface

ROCKS

Special Properties

Bubbles with Acid–Calcite
Double Refraction–Calcite
Fluorescence–Fluorite
Magnetism–Magnetite



ROCKS

Rock

A naturally formed solid
made of one or more
minerals.

ROCKS

3 Types of Rocks

1. Igneous
2. Sedimentary
3. Metamorphic

ERST Pg 6 & 7

ROCKS

Igneous Rocks

Formed from the solidification (crystallization) of molten rock (magma/lava) resulting in intergrown crystals.

ROCKS

Lava

Magma that reaches the
Earth's surface.

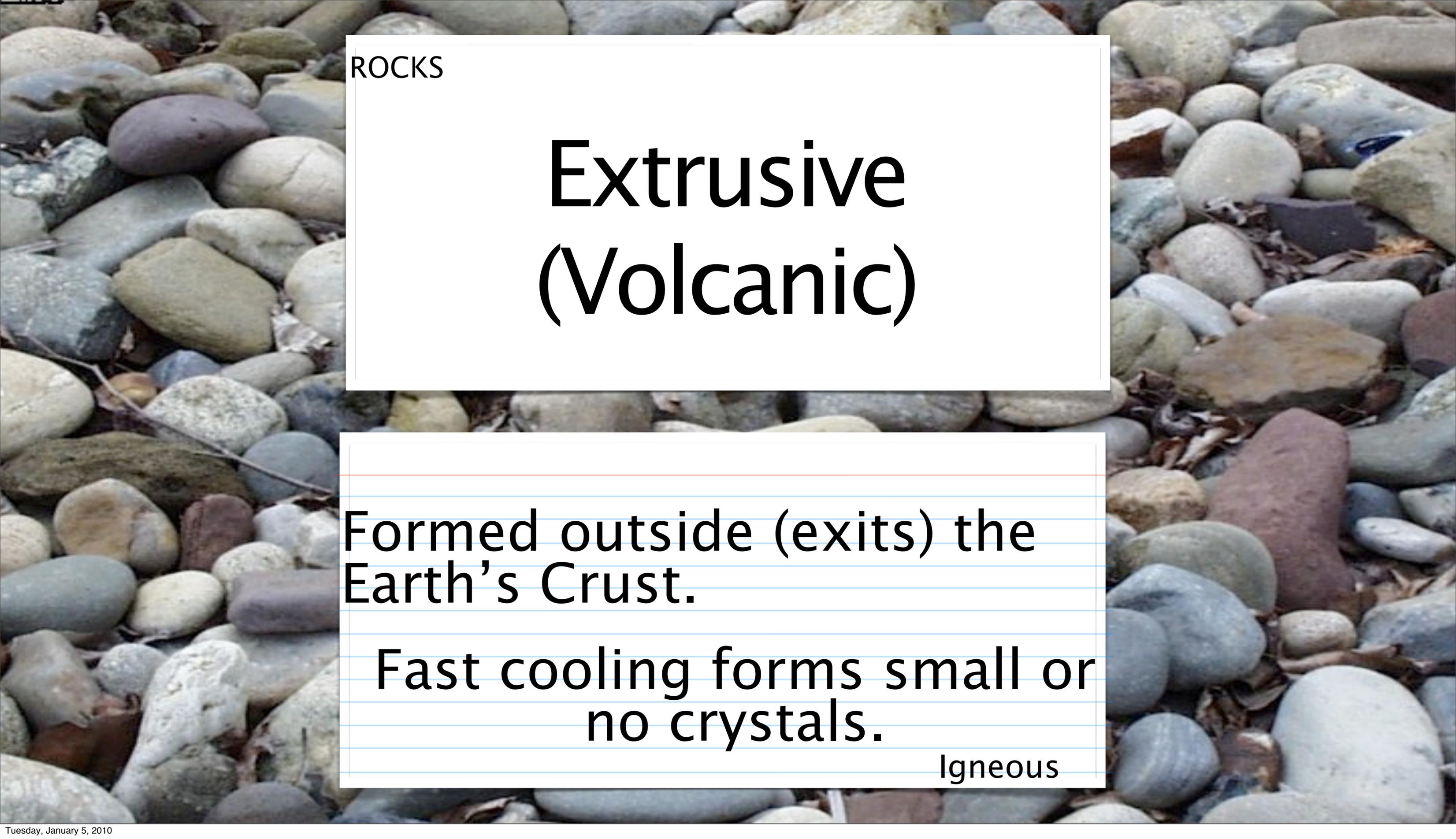
Igneous

ROCKS

Magma

Molten (liquid) rock under
the Earth's surface.

Igneous



ROCKS

Extrusive (Volcanic)

Formed outside (exits) the
Earth's Crust.

Fast cooling forms small or
no crystals.

Igneous

ROCKS

Intrusive (Plutonic)

Formed inside the Earth's
crust.

Slow cooling forms larger
crystals.

Igneous

ROCKS

Igneous Textures

How Igneous Rocks are
Classified

(glassy, vesicular, fine,
coarse, very coarse)

Igneous

ROCKS

Vesicular

Igneous rock formed with
solidified gas pockets/
bubbles.

Igneous

ROCKS

Felsic

Igneous rocks rich in
aluminum
(low density, light color)

Igneous

ROCKS

Mafic

Igneous rocks rich in iron &
Magnesium

(high density, dark color)

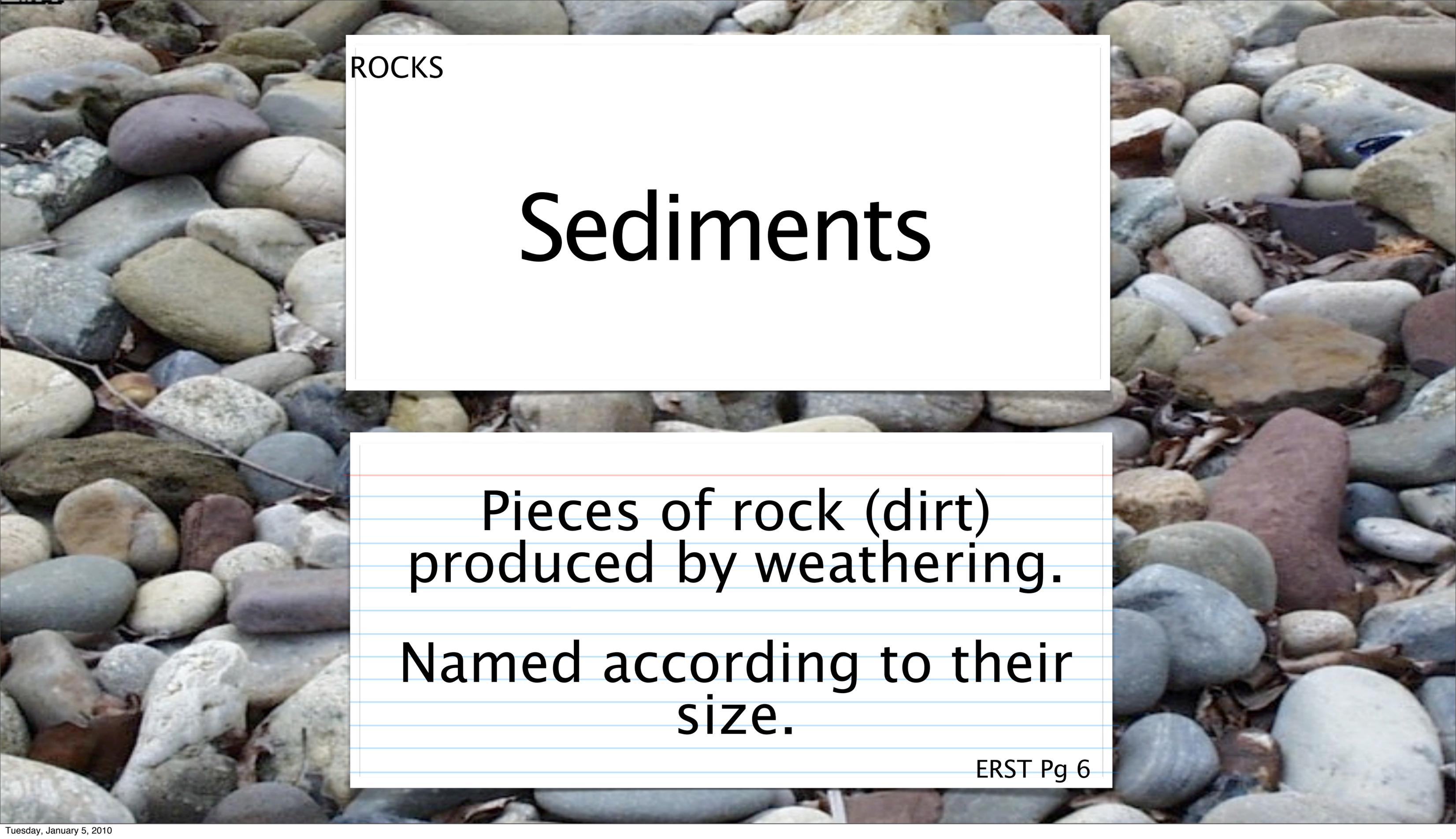
Igneous

ROCKS

Sedimentary Rocks

Rocks usually formed under water, either in layers of sediments or chemically.

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ROCKS

Sediments

Pieces of rock (dirt)
produced by weathering.

Named according to their
size.

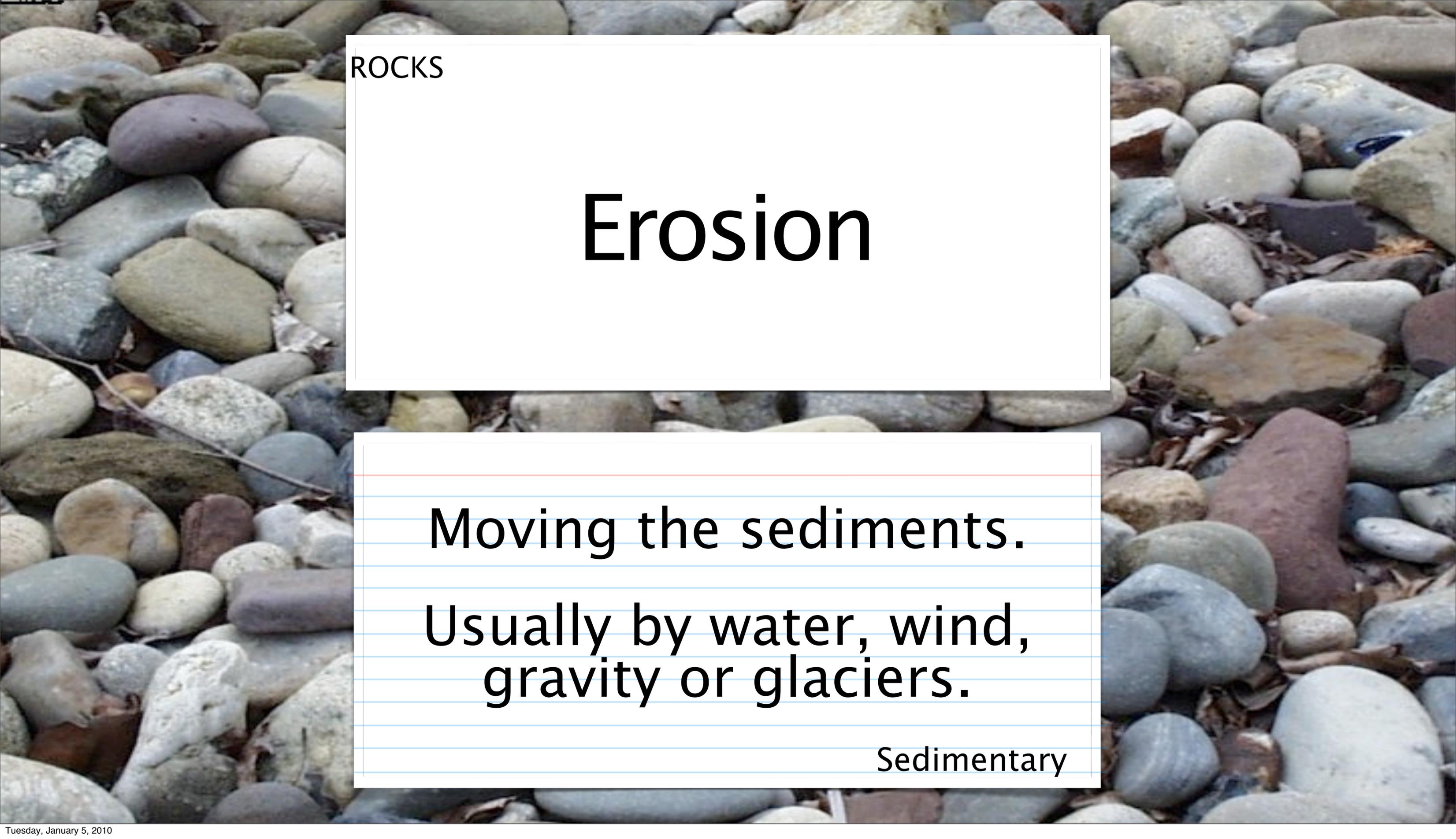
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ROCKS

Weathering

Breaking larger rock into
smaller pieces.

Sedimentary



ROCKS

Erosion

Moving the sediments.

Usually by water, wind,
gravity or glaciers.

Sedimentary

ROCKS

Deposition

Dropping the sediments in a place (depositing).

Sedimentary

ROCKS

Clastic

Sedimentary rock made by compacting (mashing) & cementing (gluing) sediments (fragments of rock) together.

Sedimentary

ROCKS

Chemical Rocks

Made from Precipitation or
Evaporation of seawater

Monomineralic

Sedimentary

ROCKS

Evaporite

Evaporation of a liquid leaves
a solid behind, the evaporite.

Sedimentary

ROCKS

Precipitate

Too Much of a solid makes the solution saturated. There is nowhere for the solid to go....except down to the bottom of the lake

Sedimentary

ROCKS

Bioclastic

Sedimentary rocks that contain remains of once living organisms.

Limestone and Coal

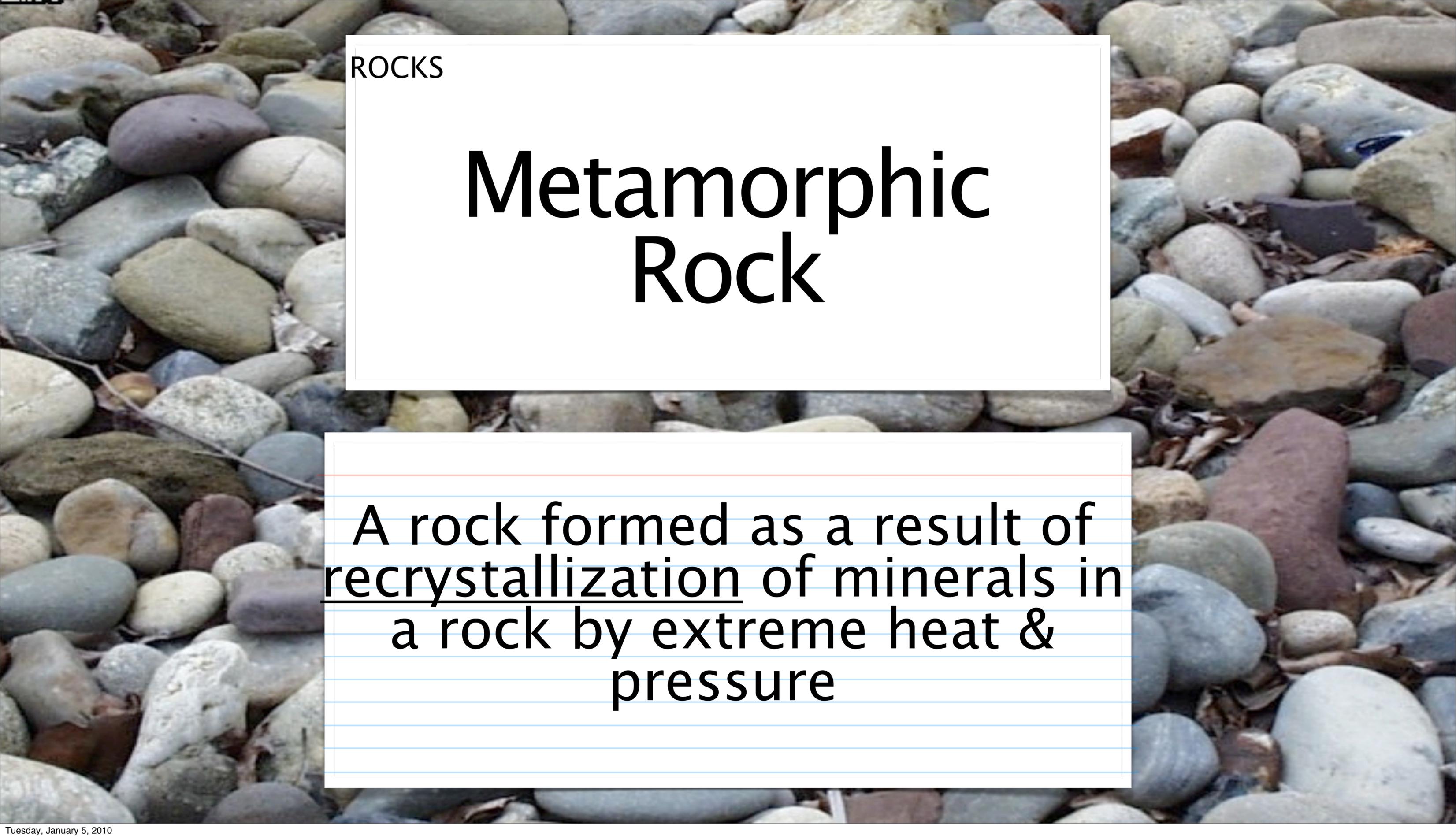
Sedimentary

ROCKS

Fossils

The remains or impression of
a plant or animal preserved in
a rock.

ONLY SEDIMENTARY ROCK



ROCKS

Metamorphic Rock

A rock formed as a result of recrystallization of minerals in a rock by extreme heat & pressure

ROCKS

Regional Metamorphism

Large areas of rock altered by
heat &/or pressure.
Usually associated with
mountain building (orogeny).

ROCKS

Contact Metamorphism

Rock altered by contact with
magma/lava, but not melted.

More localized than regional
metamorphism.

ROCKS

Foliation

Alignment or separation of
the minerals in the rock.

Metamorphic

ROCKS

Banding

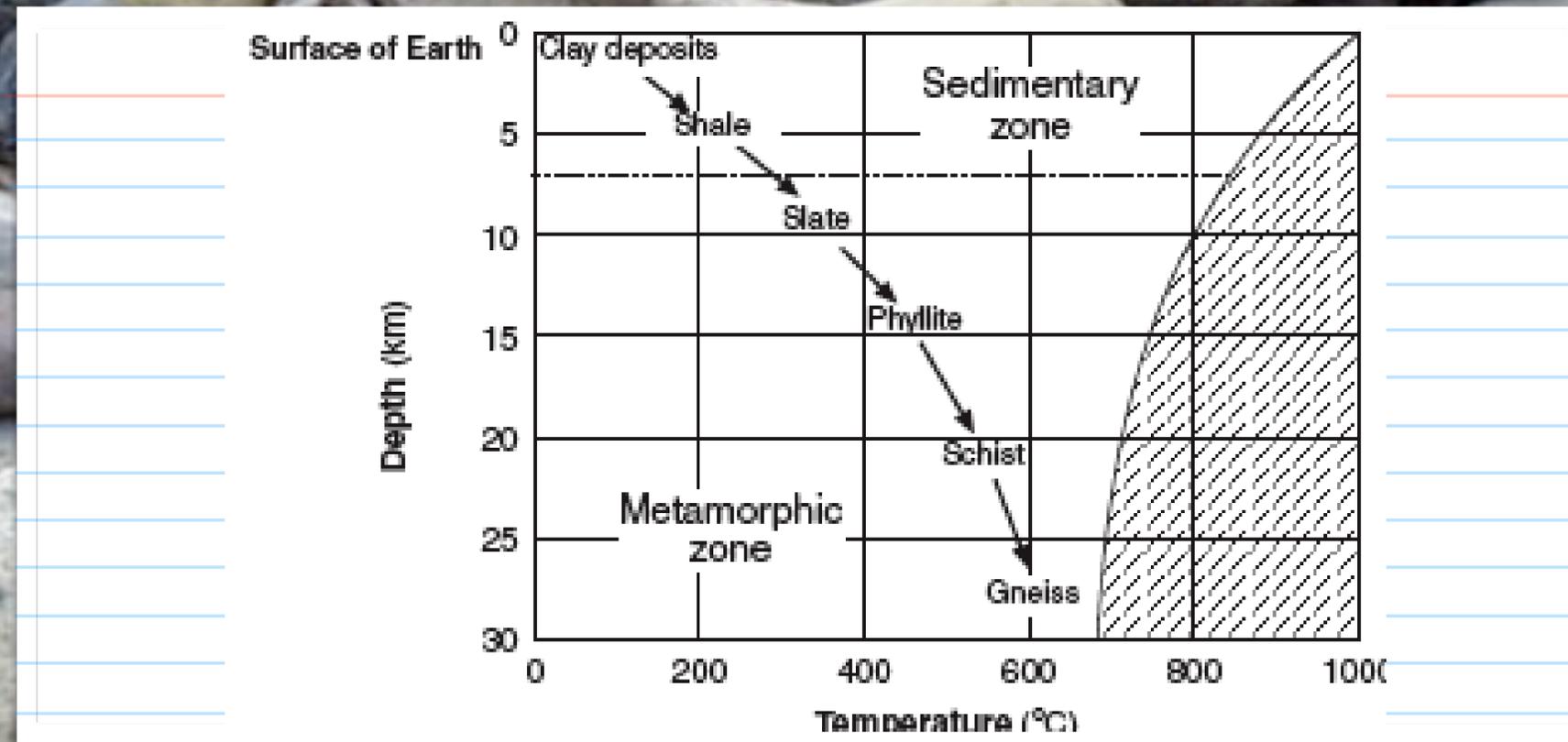
Striping of the minerals is the most extreme foliation, most metamorphosed.

Can show distortion also



ROCKS

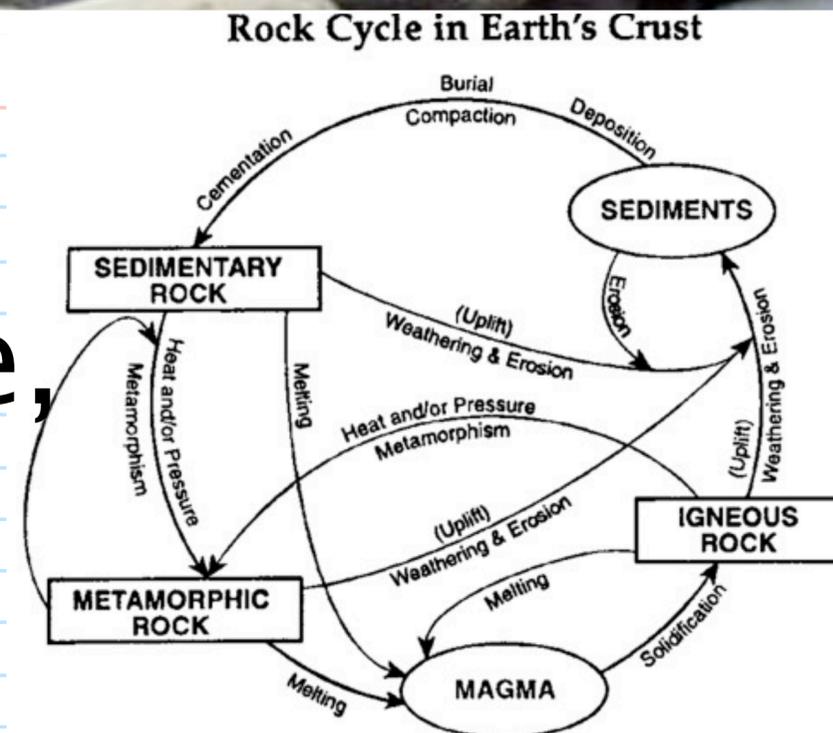
Sequence of Metamorphism



ROCKS

Rock Cycle

Shows how rocks are made, changed and recycled.



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ROCKS

How Rocks are Classified

Rocks are classified by how the processes in which they form.