

the Rock Magnet Receives 10 Star Rating Award from S. Anson, Inc.

the Rock Magnet

For Rockhounds Juniors, Teens & Greyhounds

Metamorphic Rock

MHVG+MS

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editor: Mrs. ROCK

Let's Cook Up Some Metamorphic Rock!

Ingredients:

You May Choose:

A sample of sedimentary rock
or a sample of igneous rock
or a sample of metamorphic rock.....

Take out your vise and **squeeze**
your sample!

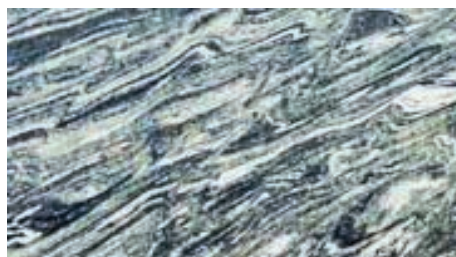
Bury your sample deep, at least ten
miles down in the Earth **increase
pressure !**

Next **Apply HEAT!**

Set your **CLOCK** for Millions of Years!

Allow another Millions of Years or so
for Erosion to remove overlying material
to expose the product of your unique
cooking skills:

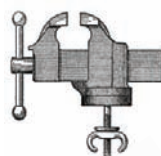
METAMORPHIC ROCK!



Really squeezed "Gneissly"

Tools:

Pressure



Depth



Heat



Time



Pressure Cooker



Add More Time!



More Information:

Dutchess County is famous for
it's Metamorphic rocks: Slate,
Phyllite, Schist, Gneiss &
Marble

Metamorphic rocks are rocks
that have changed from one
form to another.

Metamorphic rocks form deep in
the earth where the it is very hot
and there is a lot of pressure. If a
rock is heated and squeezed for
millions of years, it can turn into a
new kind of rock.

Metamorphic rocks begin to form at
7.5 - 10 miles beneath the surface of
the earth. They begin changing at
temperatures of 212 - 1472 degrees
Fahrenheit. The heat in the earth
comes from Magma and Radioactivity.
The pressure comes from layers of
rock piled onto layers of rock.

Fascinating Facts

Earth's Oldest Rock known is near
Hudson's Bay Canada. It is a dark
bedrock dating in age of 4.28 billion
years old.

The second oldest known rock lies
in Canada too. The Acasta Gneiss, a
metamorphic rock, is 3.96 billion years
old.

The Rock Puzzler ?

Metamorphic



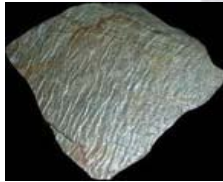
Slate



Quartzite



Mica Schist



Phyllite



Marble



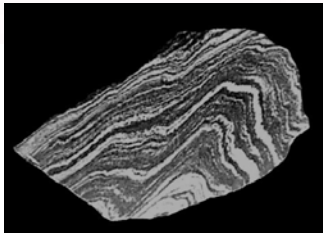
Garnets in mica schist



Gneiss



Oldest Known Rock
Metamorphic
4.28 Billions Years Old
Hudson's Bay Canada



Squeezed Gneiss
Migmatite

ACROSS:

1. I was once limestone
3. Some rock forming minerals - white, grey, and black
6. A white and black banded rock
7. Distance formed beneath the surface
9. I am either one mineral or many
10. I feel like I am in a vise
11. To warm up
13. I was once sandstone
14. My mica crystals are larger than slate's

DOWN:

1. I have changed into a new rock type
2. Something is pushing me down
4. It will be good to get to the surface again
5. I can become metamorphic too!
8. Shale changes into
10. Sometimes I am loaded with garnets
12. A long, long time

POSSIBILITIES:

contact
mudstone
pressure
slate
thousands
squeeze
gneiss
red
hundreds
siltstone
quartzite
Barrovian

heat
erosion
schist
water
igneous
marble
degrees
phyllite
sand
Phil's name
millions

form
years
silica
billions
metamorphic
10miles
feldspar, quartz, mica
garnets
folding
regional
black

