the Rock Magnet

For Rockhounds Juniors, Teens & Greyhounds

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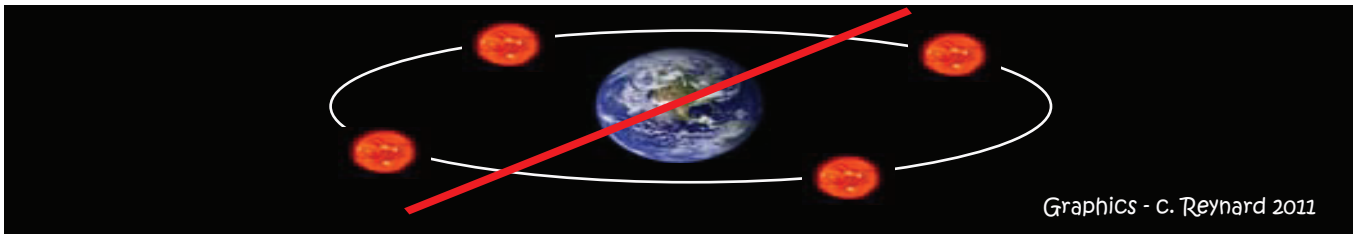
Plates What Plates * ??

Centuries ago, people thought the EARTH was ~~FLAT~~!

For Hundreds of Years people thought the sun ~~REVOLVED~~ around the Earth!!



For Decades people thought it was ~~IMPOSSIBLE~~ for Continents to move.....Drift!

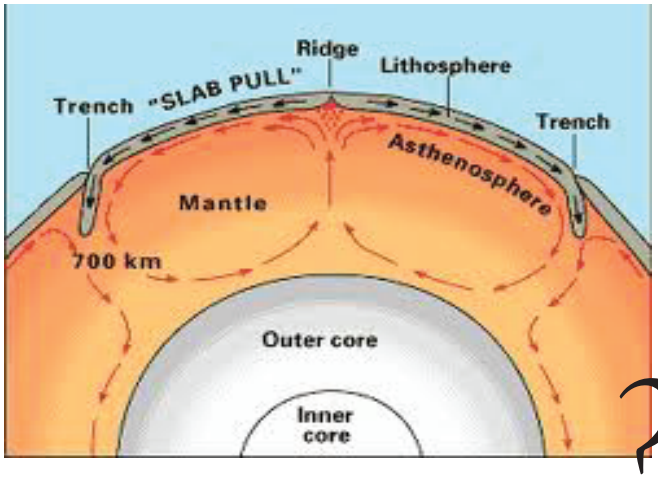
!.. CONTINENTS WITH THEIR PLATES .. DO .. MOVE .. SLOWLY..!

PLATE TECTONICS !

The heat from the Earth's core rises through the Mantle by means of convection currents that pull the plate toward a subduction trench where it moves down to the mantle only to be heated to rise to the lithosphere again. This is real recycling!!

Near subduction zones the Earth has serious volcanoes, earthquakes and resulting Tsunamis. The mountains of the Earth are created by the movement of the tectonic plates, i.e. continent to continent plates- the Himalayas or Alps; near subduction zones the Andes, Mt. St. Helens and the rest of the Cascade Range, USA. Sometimes plates rift apart, (divergent), Mid-Atlantic Ridge; sometimes they slip pass each other like the San Andres Fault in California, which is one of the places where the North American Plate and the Pacific Plate contact each other.

There several hot spots directly connected to the Mantle that release basaltic volcanic magma. As the Pacific Plate passed over this spot, the Hawaii Islands have been created.



How have Scientists figured out that our Earth has moving lithospheric slabs (plates)?

answers on website: www.mhvgms.org

*over

ROCKHOUND WORD SEARCH!

V S Q S D L A T N E N I T N O C T T G V Q L
M N E I C R X V S R E C Y C L E D A F H Z T
X C E O M I I F R P L P M L Z X Y E S S I A
O Z M U N F N F I I R X K S G F G H A N M N
G W S D I A C O T M B E U E T A L P Y I A F
S A M G A M C H T J A B A R R H F H A A N L
D T V H G M O L T C D N I D O M T K L T T U
S E N E I S P R O U E D U T I H A J A N L A
X U R E P C E X C V G T S S W N H L M U E N
R O C H R N T T J E G P U X T H G S I O G D
C D E L C R I D H M O A F R I C A Y H M A E
Q R E H G O U A Q T C O N V E C T I O N C S
E Z C I R E M A H T U O S Z X A L P S Z Q X
D A C I R E M A H T U O S Z X A L P S Z Q X

SEARCH WORDS

AFRICA
ALPS
ANDES
CONTINENTAL
CONVECTION
CORE
CURRENTS
DRIFT
HEAT
HIMALAYAS
HOT SPOT
LITHOSPHERE
MAGMA
MANTLE
MOUNTAINS
OCEANIC
PLATE
RECYCLE
RIDGE
SOUTHAMERICA
SPREADING
SUBDUCTION
SUN
TECTONICS
TRENCH
TSUNAMI
VOLCANOES

PATTERN- across, down, diagonal, reversed

For years many noticed how perfectly the continents could fit together if they were cut out and assembled like a puzzle. Certainly Africa fit the contour of South America perfectly and the fossils were much the same on both continents. But the idea of rock plowing through rock just could not happen. During the second World War the scientists mapping the ocean basins discovered The mid-Atlantic Ridge with sequential upwelling of magma that was spreading and widening the Atlantic Ocean. Where was it going??? the Earth wasn't getting any larger...ocean crust was plunging beneath continental crust somewhere to offset this change! To read more about Plate Tectonics search the internet..Wikipedia