

THE MYSTERY OF EARTH'S AGE!

A KID'S GUIDE TO THE PLANET'S BIRTHDAY MYSTERY!

LONG AGO...

THE BIG QUESTION?
How old is our planet?

DIFFERENT IDEAS!

THOUSANDS OF YEARS?

THE DETECTIVE SCIENTIST

CLUE 1: ROCKS!

ROCK LAYERS

ANCIENT STONES

CASE SOLVED!

CLUE 2: FOSSILS!

DINOSAUR BONES

OLD LIFE

GATHERING EVIDENCE...

CLUE 3: STARS!

DISTANT STARS

COSMIC CLUES

THE AMAZING ANSWER:

**EARTH IS
~4.6 BILLION
YEARS OLD!**



**SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!**

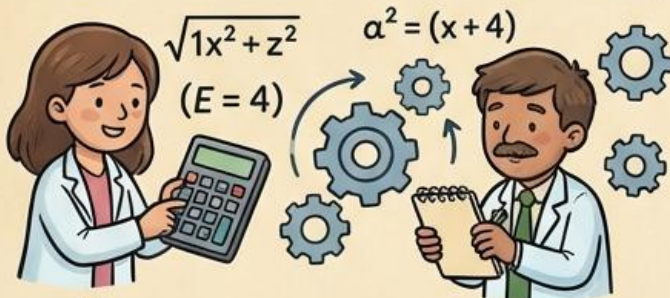
#EarthAge #ScienceForKids

ASTRONOMY SAYS EARTH'S AGE

Astronomers look at stars and planets to guess Earth's age.



They study how stars change over time.



and use math to calculate how long Earth has existed.



FUN FACT:
The Sun is about
the same age
as Earth!



SPACE THEORY SAYS EARTH'S AGE!

A Kid's Guide to How Planets Form and Grow!

LONG AGO...



THE DETECTIVE
SCIENTIST

THE BIG
QUESTION?
How old is
our planet?

DIFFERENT
IDEAS!

THOUSANDS
OF YEARS?

SPACE THEORY IDEAS!



Scientists think Earth grew
from dust and rocks
circling the Sun.



THE AMAZING ANSWER:

**EARTH IS
~4.6 BILLION
YEARS OLD!**

It became the Earth
we live on today.



MILLIONS
OF YEARS

GROWING
THE EARTH!

It became the planet
we live on today.



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

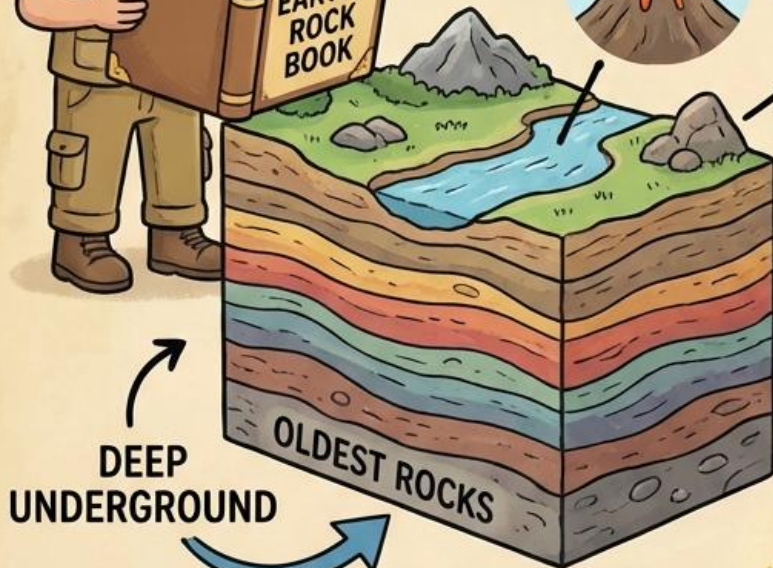
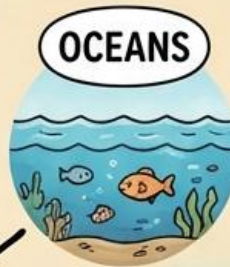
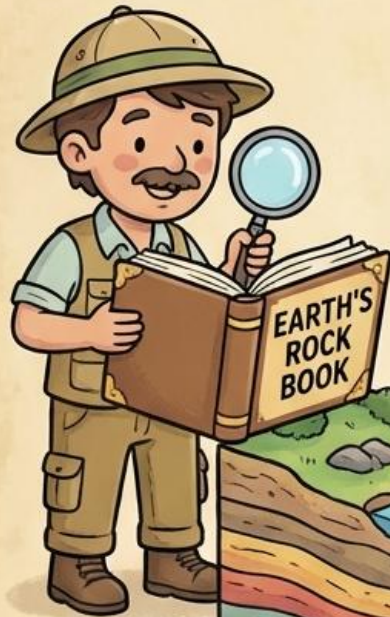
#EarthAge #ScienceForKids

A KID'S GUIDE TO GEOLOGY!

GEOLOGY FACTS:

READING EARTH'S STORY!

LAYERS = PAGES

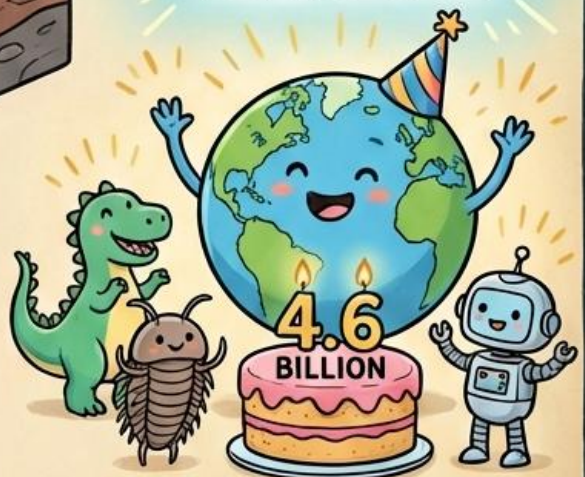


THE AMAZING ANSWER:

**EARTH IS
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**EARTH IS
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SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

#EarthAge #GeologyFacts

EARTH'S HOT HISTORY SAYS EARTH'S AGE!

A KID'S GUIDE TO THE GIANT HEATER INSIDE!



THE DETECTIVE
SCIENTIST

DEEP INSIDE,
EARTH IS VERY
HOT!



HEAT FROM
FORMATION



DID YOU KNOW?
SOME HEAT ALSO
COMES FROM SPECIAL
ROCKS CALLED
RADIOACTIVE
MINERALS.

THIS HEAT COMES FROM
WHEN EARTH FIRST FORMED.
SCIENTISTS USE IT TO
GUESS EARTH'S AGE.

THE AMAZING ANSWER:

**EARTH IS
~4.6 BILLION
YEARS OLD!**



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

#EarthAge #ScienceForKids

READ BOOKS AND READ NATURE!

A KID'S GUIDE TO LEARNING EVERYWHERE!

WE CAN LEARN FROM BOOKS!



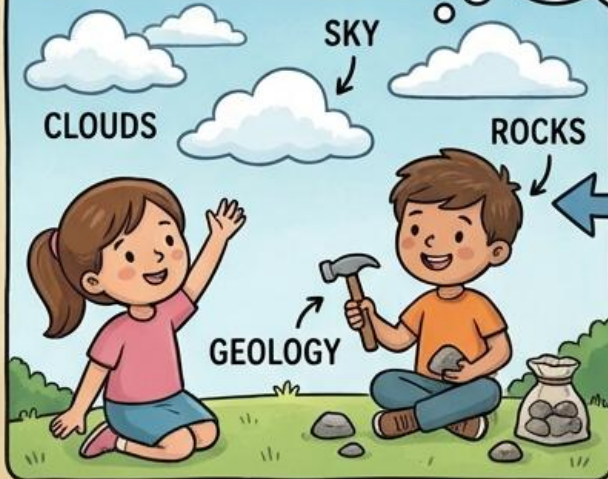
BUT ALSO BY EXPLORING NATURE!



WAYS TO
BE A
SCIENTIST!



WATCHING CLOUDS &
COLLECTING ROCKS!



GROWING PLANTS
IS SCIENCE!



LEARN FROM EVERYTHING AROUND YOU!

#ReadAndExplore #ScienceForKids

CHINA LAND SHAPE SHORT TALK!

A Kid's Guide to China's Amazing Shapes!

TALL MOUNTAINS!

ANCIENT
MOUNTAINS

FLAT
PLAINS

WIND!

WATER!

MOVING
LAND!

WIDE PLAINS!

LONG RIVERS!

Shapes were made over
MILLIONS OF YEARS by
wind, water, and moving land!

AMAZING CHINA!

**MILLIONS OF YEARS
IN THE MAKING!**

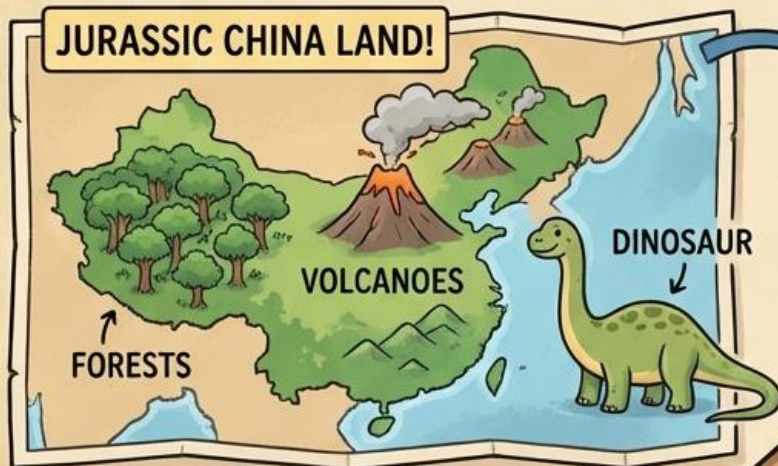




JURASSIC ADVENTURE IN CHINA!

A KID'S GUIDE TO ANCIENT CHINA & DINOSAURS!

JURASSIC CHINA LAND!



FOSSILS

FOSSILS



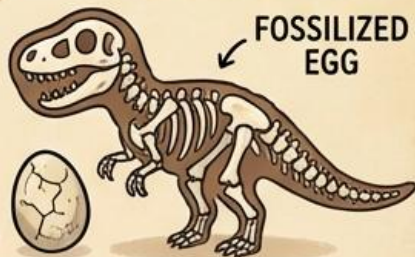
Finding
ancient
clues!

DINOSAUR
BONES

FOSSILS

DINOSAURS
& FOSSILS!

FOSSILIZED
EGG



4.6

JURASSIC

AGE!

ANCIENT WORLD REVEALED!
FOSSILS help us imagine
that world!



THE AMAZING EARTH'S SHAPE!

A KID'S GUIDE TO OUR PLANET'S SQUASHED BALL SHAPE!

LONG AGO...

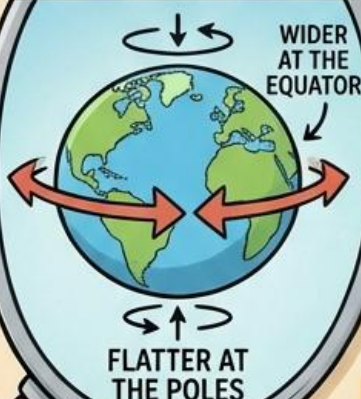


THE DETECTIVE SCIENTIST

A PERFECT BALL?

EARTH IS LIKE A SLIGHTLY SQUASHED BALL!

CLUE 1: IT'S A SPINNER!



NOW... A SQUASHED BALL!

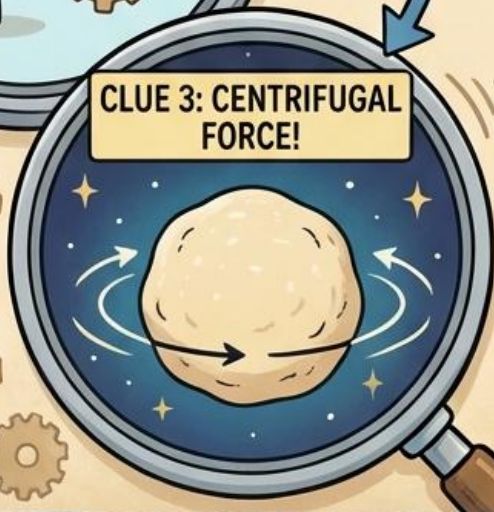


CLUE 2: THE SPIN EFFECT!



GATHERING EVIDENCE...

CLUE 3: CENTRIFUGAL FORCE!



THE AMAZING ANSWER:

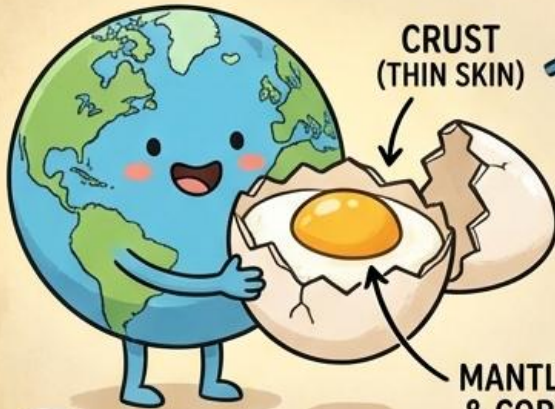
EARTH IS IN AN OBLATE SPHEROID!
(SLIGHTLY SQUASHED BALL!)



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!
#EarthShape #ScienceForKids

THE AMAZING EARTH'S CRUST!

A KID'S GUIDE TO OUR PLANET'S PUZZLE PIECES.



IDEA: EARTH'S CRUST IS LIKE A CRACKED EGGSHELL.

GIANT PUZZLE PIECES!

IT'S MADE OF TECTONIC PLATES.

TECTONIC PLATE



PUZZLE PIECE

PLATES MOVE VERY SLOWLY...

BUMP!

SHAKE!

...CAUSING EARTHQUAKES!

MOUNTAIN!

...AND BUILDING MOUNTAINS!

SCIENCE ROCKS! OUR DYNAMIC PLANET!

#EarthScienceForKids

HOW TO GROW KIDS' LOVE FOR SCIENCE

A Kid's Guide to Sparking Scientific Curiosity!



CURIOSITY IS THE FIRST STEP TO LOVING SCIENCE!



SCIENCE IS FUN!
KEEP EXPLORING!
#ScienceForKids #Curiosity

BIG LAND BUILD AND OIL LAYERS!

A KID'S GUIDE TO BURIED TREASURE!

LONG AGO...

TINY SEA
CREATURES



UNDER MUD & ROCK

BURIED
UNDER
MUD & ROCK

HEAT &
PRESSURE



THE AMAZING ANSWER:

**OIL IS
ANCIENT
ENERGY!**

CLUE 2: FOSSILS!

? HEAT &
PRESSURE

TURNED
INTO OIL!

CLUE 3: EVERS!

OIL LAYERS

FOSSIL
FUELS



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

#EarthAge #ScienceForKids

LOOK AT OUR EARTH

A KID'S GUIDE TO OUR BEAUTIFUL PLANET!

OCEANS



BLUE
WATER

FORESTS



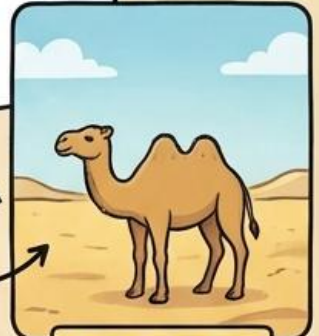
GREEN
TREES

Earth is a beautiful planet
with oceans, forests,
and deserts.



DESERTS

DRY
SAND



DESERTS

DRY
SAND

It's the only home we have,
so we must take care of it.

LEARNING IS FUN!
#OurPlanet #EarthCare

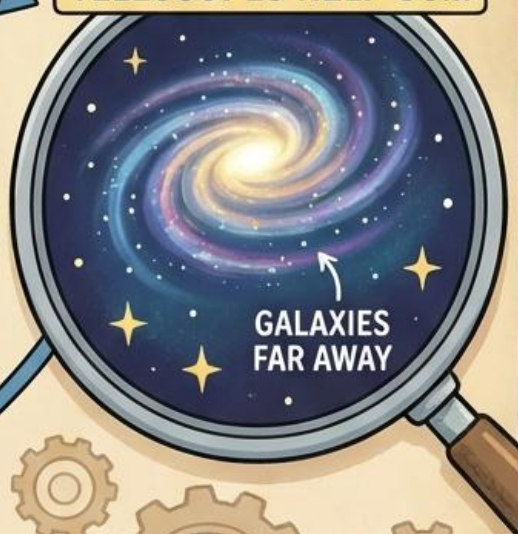
SEE UNIVERSE FROM EARTH

A KID'S GUIDE TO THE NIGHT SKY & BEYOND!

AT NIGHT, WE SEE...



TELESCOPES HELP US...



CLUE 2: ECRISL...



LINIVIER
MOREUS...

FUN FACT:



UNIVERSE IS HUGE!
KEEP EXPLORING!

#Space #ScienceForKids

EARTH'S CRUST!

The crust is where we live. It's made of soil, sand, and rock.

Under the oceans, the crust is thinner; under continents, it's thicker.



WHERE WE LIVE



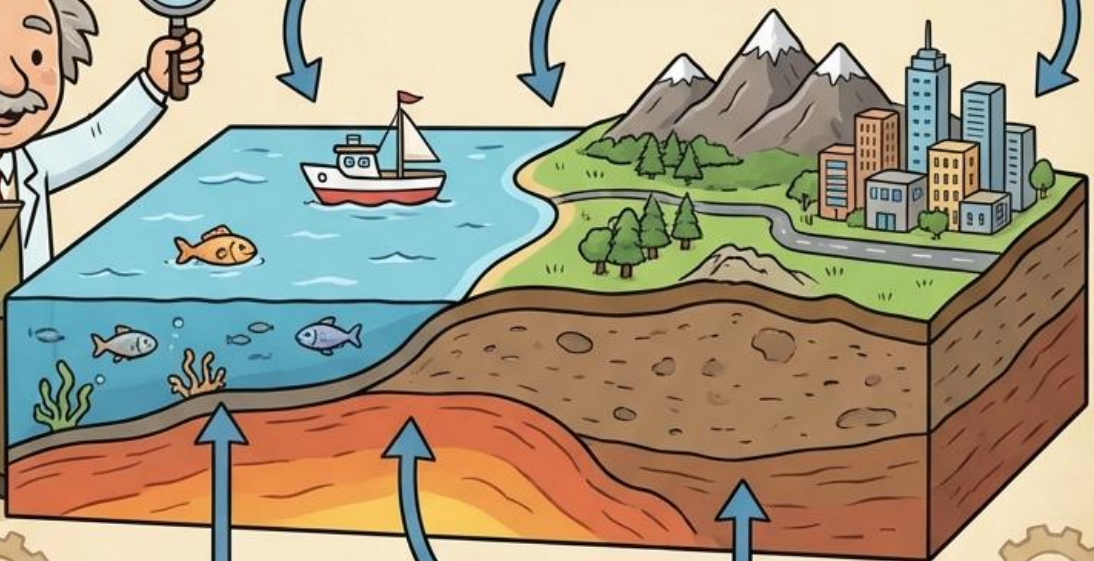
SOIL



SAND



ROCK



OCEANIC CRUST
(THINNER)

CONTINENTAL CRUST
(THICKER)

LEARNING ABOUT OUR PLANET!

#EarthsCrust #GeologyForKids

THE POWER OF GEOTHERMAL HEAT!

A KID'S GUIDE TO EARTH'S UNDERGROUND ENERGY!



THE VIKING SCIENTIST



Deep underground, Earth is so hot that rocks melt!

ICELAND:
A COOL EXAMPLE



In some places, like Iceland, people use this heat to warm houses...

MAKING
ELECTRICITY!



...and make electricity.

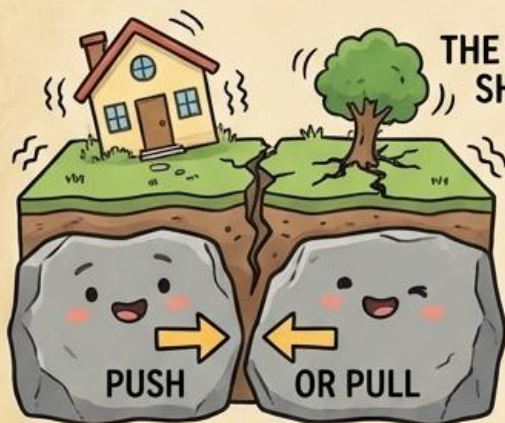
**CLEAN ENERGY
FROM EARTH!
SCIENCE ROCKS!**

#GeothermalEnergy
#EarthScience #CleanPower



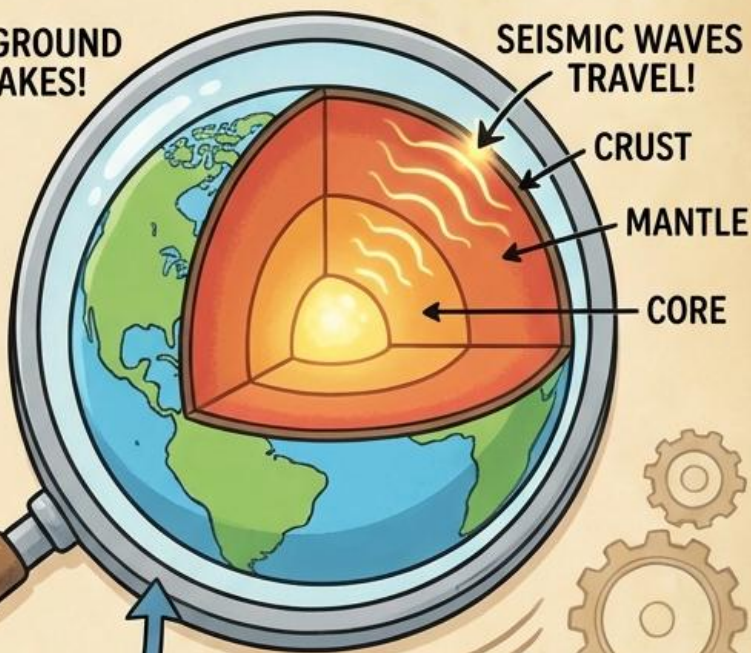
THE MYSTERY OF EARTHQUAKES & SEISMIC WAVES!

A KID'S GUIDE TO THE SHAKING EARTH!



THE GROUND
SHAKES!

TECTONIC PLATES



SEISMIC WAVES
TRAVEL!

CRUST

MANTLE

CORE

SCIENTISTS
"SEE" INSIDE!

JUST LIKE A
DOCTOR USES
X-RAYS!

JUST LIKE A
DOCTOR USES X-RAYS!



SCIENCE HELPS US UNDERSTAND
OUR AMAZING PLANET!
LEARNING ROCKS!

#Earthquakes #ScienceForKids

SIMPLE TALK ON EARTHQUAKES

A KID'S GUIDE TO STAYING SAFE & PREPARED!

CLUE 1: STAY SAFE!



HIDING UNDER
A TABLE



STAYING AWAY
FROM WINDOWS

CLUE 3: BUILD STRONG!



BUILD
STRONGER
BUILDINGS

CLUE 2: SCIENCE
PREDICTS!



PREDICT
QUAKES

WE CAN
STAY SAFE &
PREPARED!

CLUE 3: STARS!



SCIENCE
AT WORK

BUILD
STRONGER
BUILDINGS



STRONG
FOUNDATIONS

SCIENCE HELPS US BE READY!
LEARNING ROCKS!

#EarthquakeSafety #ScienceForKids #BePrepared

THE PROBLEM OF FUEL!

A KID'S GUIDE TO ENERGY CHOICES!



FUEL LIKE COAL AND OIL



POLLUTES
THE AIR

WILL ONE DAY
RUN OUT



NEED
CLEAN
ENERGY



CLEAN ENERGY
FOR THE FUTURE!

MODERN LIFE AND COAL!

A KID'S GUIDE TO COAL'S STORY!

LONG AGO...



COAL POWERED
TRAINS & FACTORIES

TODAY...



WE USE COAL FOR
ELECTRICITY

THE FUTURE!



LEARNING CLEANER ENERGY!

PROTECT
OUR
PLANET!



ELECTRICITY

COAL



CLEAN ENERGY IS THE FUTURE!
GO GREEN!

#CleanEnergy #ModernLife

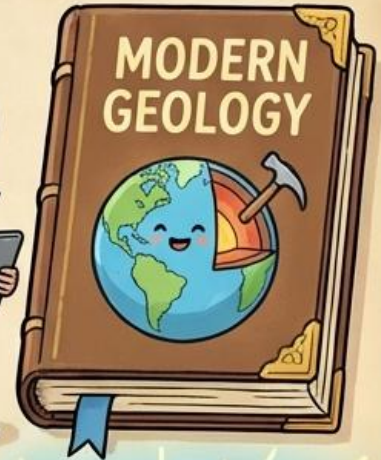
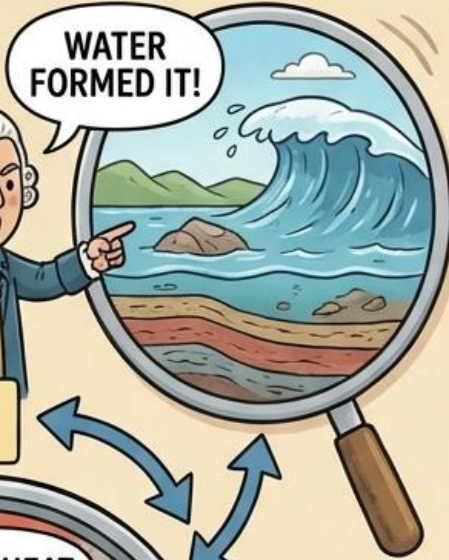
GEOLOGY DEBATE IN ENLIGHTENMENT TIME

A KID'S GUIDE TO HOW SCIENTISTS ARGUED ABOUT EARTH!

HUNDREDS OF YEARS AGO...



IDEA 1: OCEANS & FLOODS



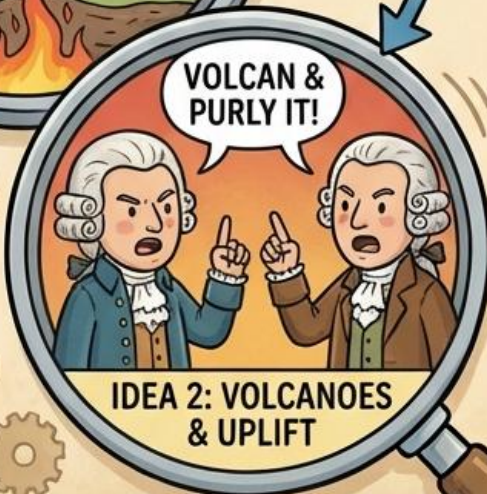
THE AMAZING ANSWER:

THESE DEBATES
HELPED CREATE
MODERN GEOLOGY!

GATHERING
EVIDENCE...



FIRE & HEAT
FORMED IT!



VOLCAN &
PURLY IT!

IDEA 2: VOLCANOES
& UPLIFT



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

#GeologyHistory #ScienceForKids

EXPLORING GEOLOGICAL TIMES!

A KID'S GUIDE TO EARTH'S HISTORY CHUNKS!

JURASSIC PERIOD!

UNIQUE
ANIMALS
(DINOSAURS!)

UNIQUE
PLANTS!

EARLY EARTH!

ANCIENT
STONES!

SIMPLE
LIFE!

ICE AGE!

UNIQUE
CLIMATES
(COLD!)

UNIQUE
ANIMALS
(MAMMOTHS!)

ICE LIFE!



THE AMAZING ANSWER:
EARTH'S HISTORY IS
DIVIDED INTO CHUNKS!

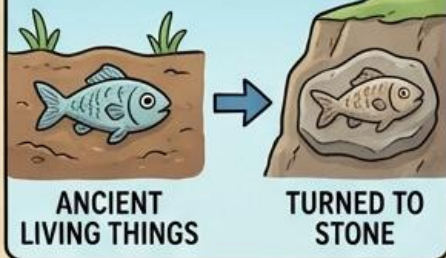
SCIENCE HELPS US UNDERSTAND!
LEARNING ROCKS!

#GeologicalTimes #EarthHistoryForKids

FOSSILS AND ANCIENT PEOPLE!

A Kid's Guide to Earth's Past!

WHAT IS A FOSSIL?



GATHERING CLUES FROM THE PAST...

CLUE 1: DINOSAUR LOOKS!



CLUE 2: EARLY HUMAN LIFE!



CLUE 3: CHANGE OVER TIME!



GATHERING EVIDENCE...

LIFE HAS CHANGED

CLUE 2: EARLY HUMAN LIFE



FOSSILS TELL US
EARTH'S AMAZING STORY!
LEARNING IS FUN!

#FossilDetectives #KidsScience

START OF GLACIERS!

A KID'S GUIDE TO HOW GLACIERS BEGIN!

GLACIERS
ARE RIVERS
OF ICE!

FORM WHEN
SNOW
PILES UP!

THOUSANDS
OF YEARS!



MOVE
SLOWLY...



DURING ICE AGES,
GLACIERS COVERED
MUCH OF EARTH!



SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

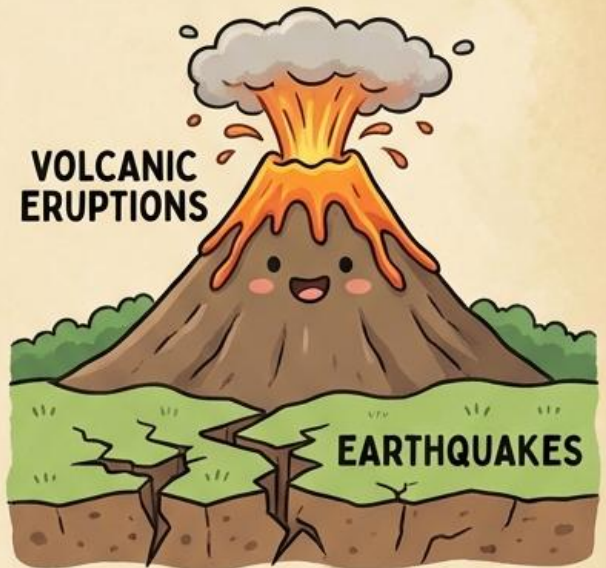
#Glaciers #ScienceForKids

WHY LAND CHANGES OVER TIME!

SLOW CHANGES



FAST CHANGES!



CHANGE THE LAND QUICKLY!



THE EARTH IS ALWAYS CHANGING!

#LandForms #ScienceForKids



GEOMECHANICS: EARTH'S MIGHTY FORCES!

A Kid's Guide to How Our Planet Works!

CLUE 1: SHAPING OUR WORLD!



CLUE 1: SHAPING
OUR WORLD!

Forces Inside Earth
* Shape Continents
& Oceans!



CLUE 2: UNDERS-
HIDDEN EARTHQUAKES!

Geomechanics Helps
Us Learn About
Earthquakes!



SEISMOGRAPH!

Geomechanics
Helps Us Learn
About Earthquakes!



SEISMOGRAPH

CLUE 3: FINDING
HIDDEN TREASURES!



We Use It to Find
Resources Like Oil!

THE AMAZING ANSWER:

Geomechanics is like a puzzle
to understand Earth's Secrets!

Science Solved the Mystery! Learning Rocks!



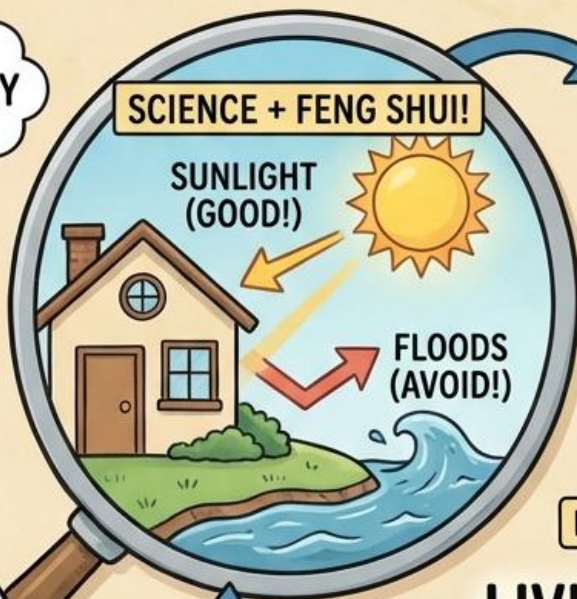
ANOTHER MEANING OF FENG SHUI: HARMONY WITH NATURE!

A KID'S GUIDE TO LIVING IN BALANCE WITH THE EARTH!



HARMONY

ANCIENT PRACTICE

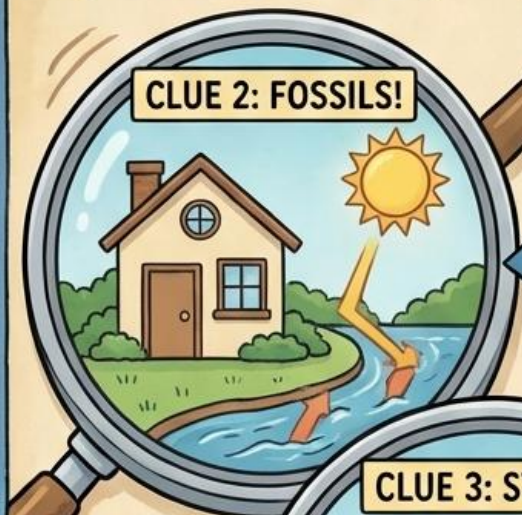


SMART
DESIGN!



LITTLE SCIENTIST

CLUE 2: FOSSILS!



GATHERING
EVIDENCE...

**LIVING IN
HARMONY!**
SCIENCE & WISDOM UNITE!

CLUE 3: STARS!



LIVING IN HARMONY!
SCIENCE & WISDOM UNITE!

**UNDERSTANDING NATURE
FOR A BETTER WORLD!**

#FengShuiForKids #NatureScience

THE MYSTERY OF HUMAN ORIGINS!

A KID'S GUIDE TO OUR CENTRAL ASIAN START?

LONG AGO...



THE DETECTIVE SCIENTIST

Did Humans Start in Central Asia?

DIFFERENT IDEAS!



THOUSANDS OF YEARS?



CLUE 1: CENTRAL ASIA!

ANCIENT STONES & FOSSILS FOUND THERE!



CASE SOLVED!



CLUE 2: ANCIENT TOOLS!

HANDMADE TOOLS!



EARLY HUMAN LIFE!

PIECING TOGETHER THE STORY...

THE SCIENTIFIC IDEA:

Some scientists think the first humans lived in Central Asia. Fossils and tools found there help us piece together the story of our ancestors.

CLUE 3: FOSSIL FINDS!

OUR ANCESTORS' BONES!

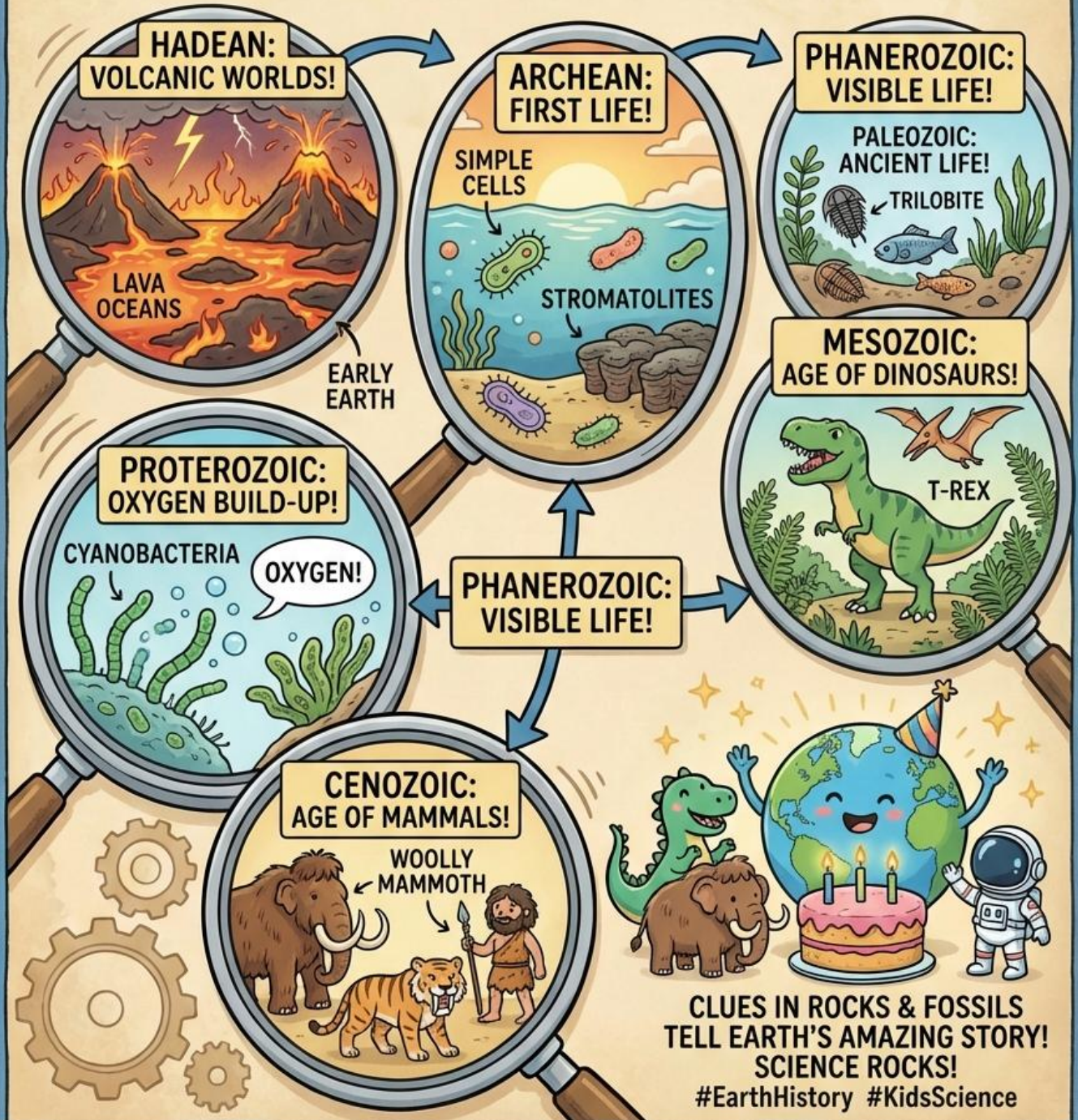


HUMAN HISTORY!
LEARNING ROCKS!

#HumanOrigins #ScienceForKids

ERAS OF EARTH'S HISTORY

A Kid's Guide to Our Planet's Epic Story & Changes!



HOW GEOMECHANICS GREW AND ITS JOBS TODAY

A Kid's Guide to Earth's Powerful Rocks & How We Use Them!

LONG AGO...



THE DETECTIVE SCIENTIST

HOW DO
ROCKS
BEND &
BREAK?

Geomechanics started
with studying how rocks
bend and break.



Today, it helps us build
tunnels, mine safely, and protect
cities from earthquakes.

BUILD TUNNELS!



MINE SAFELY!



PROTECT CITIES FROM EARTHQUAKES!



GEOMECHANICS ROCKS!
LEARNING IS FUN!

#Geomechanics #ScienceForKids

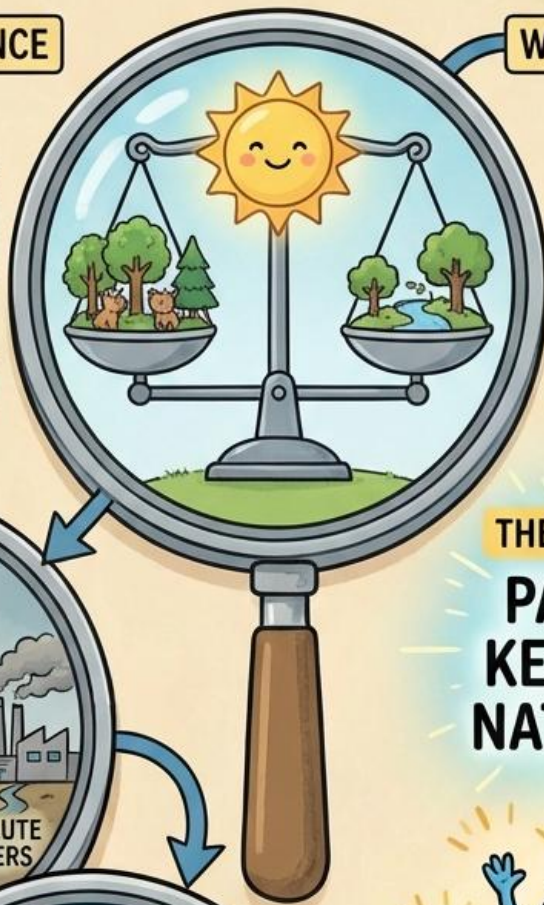
BALANCE AND PAYING BACK IN NATURE!

A KID'S GUIDE TO KEEPING OUR PLANET HAPPY!

NATURE HAS A BALANCE



WE MUST "PAY BACK"!



IF WE TAKE TOO MUCH...

TAKE TOO MANY TREES



WE MUST "PAY BACK"!

PLANTING TREES

CLEANING THE ENVIRONMENT



THE AMAZING ANSWER:

**PAYING BACK
KEEPS NATURE
NATURE HAPPY!**



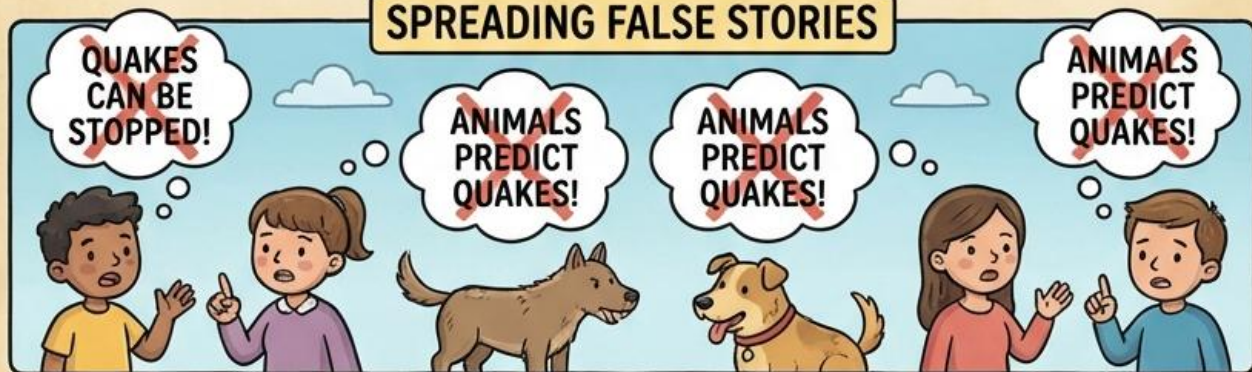
SCIENCE SOLVED THE MYSTERY!
LEARNING ROCKS!

#EarthAge #ScienceForKids

BUST FAKE NEWS AND SIMPLE TALK ON EARTHQUAKES!

A KID'S GUIDE TO EARTHQUAKE TRUTHS!

SPREADING FALSE STORIES



SCIENTISTS SHARE THE TRUTH



WE CAN'T STOP QUAKES



WE CAN PREPARE!



STAY SAFE!



SCIENCE HELPS US UNDERSTAND!
BE PREPARED!

#EarthquakeSafety #KidsScience