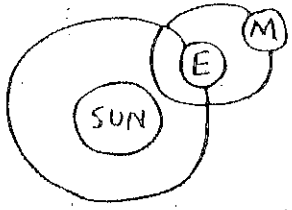
## REVOLUTION

goes around

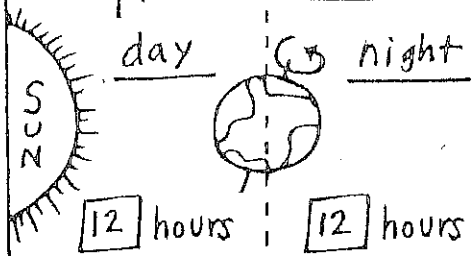



Moon around Earth = 29 days

Earth around Sun = 365 days

## ROTATION

spins on axis




12 hours | 12 hours

Day and Night cycle = 24 hours

## SUN

sphere of gas

medium sized star

No real surface

source of heat and light

## EARTH

sphere of rock

3rd planet from the sun

ONLY planet to support life

has water and atmosphere

## MOON

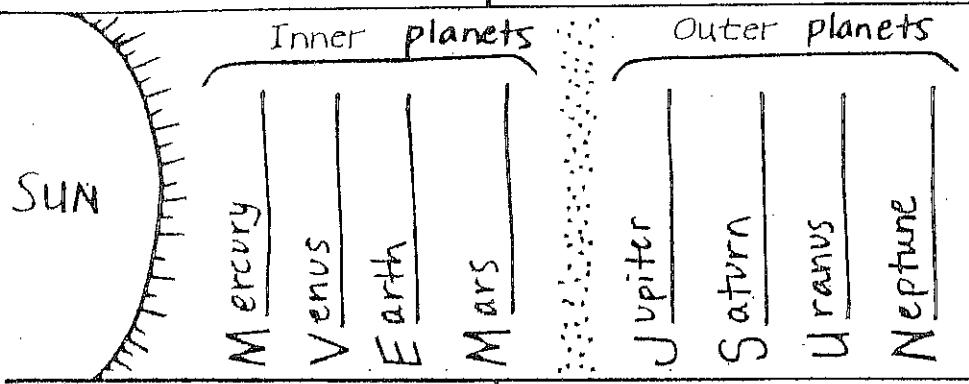
sphere of rock

NO atmosphere

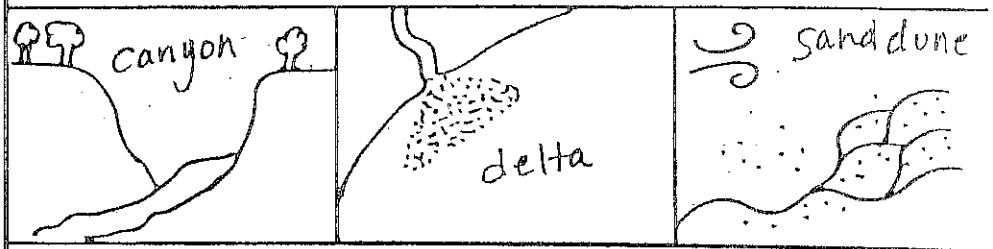
No life

29 days to revolve around the earth

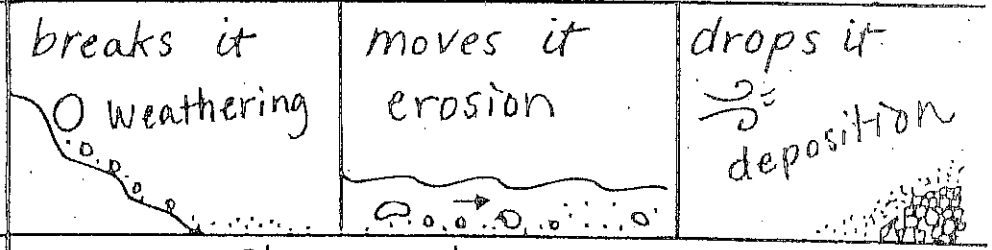
natural satellite




## LANDFORMS




## SLOW Changes to the Earth




Sedimentary rock: rock made of sediments

processes: weathering, erosion, deposition, compaction, cementation

fossils: remains of organisms turned to stone

time to form: millions of years

## FOSSIL FUELS : NON RENEWABLE

**COAL** -solid-

formed: from Swampland heat + pressure

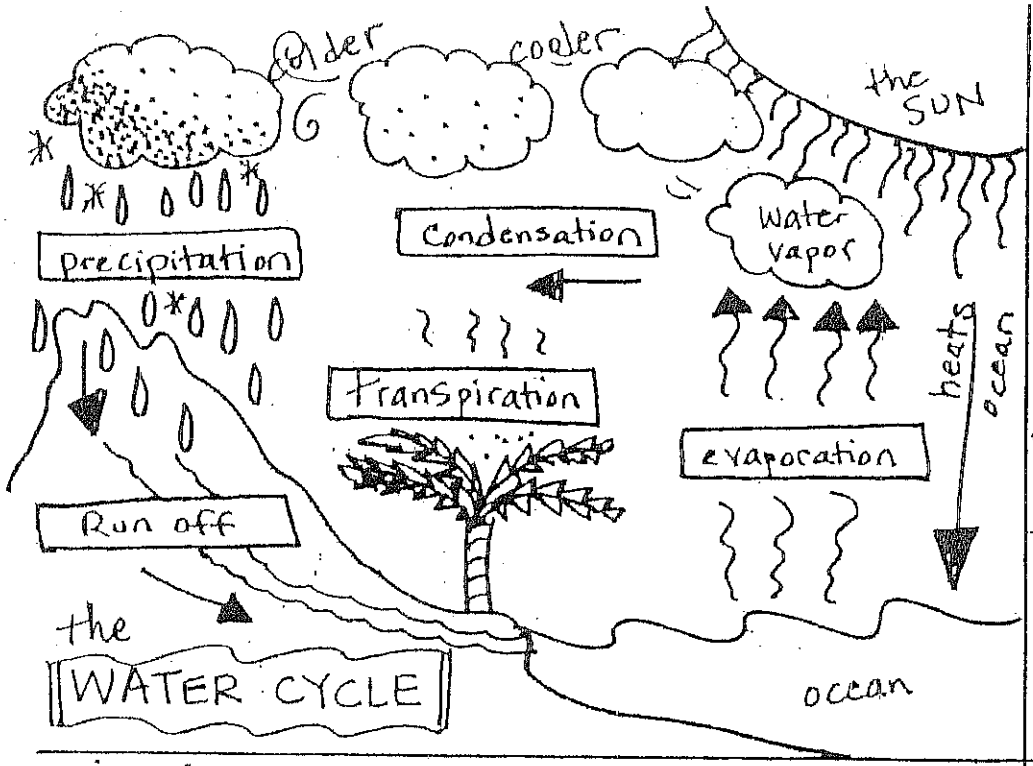
**OIL** -liquid-

formed: dead Sea animals heat + pressure

**NATURAL GAS** -gas-

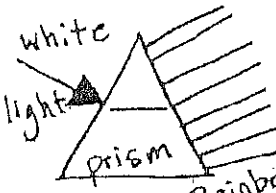
formed: dead Sea animals extreme heat

## FAST Changes to the Earth




Light travels in Straight lines until reflection or refraction

| Refraction | Reflection | Transmit | Absorb |
|---|---|---|---|
| light: bends | light: bounces off | light: goes through | light: (stops) goes into |
| looks bent / bigger — pencil in water | mirror | window | black paper |




white light bends in a prism

CONVEX — appear: bigger

CONCAVE — appear: smaller

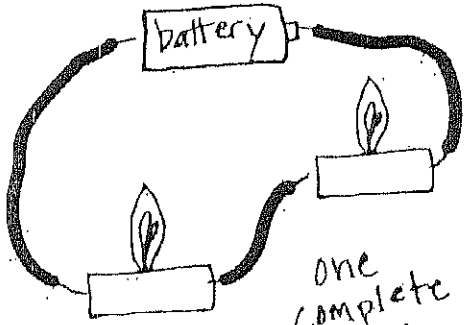
circuit: the path an electric current flows

Lights ON circuit CLOSED

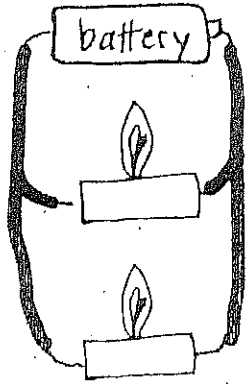
Lights OFF circuit OPEN

conductor allows flow
example: metal wire
insulator stops flow
example: plastic on wire

SERIES: all go out

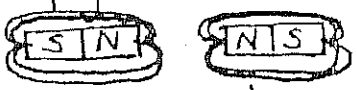



PARALLEL: Some stay lit

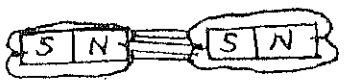



FORCE: a push or pull

Magnetism

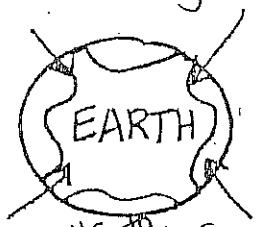



likes repel



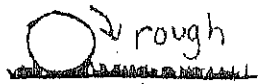

opposites attract

Gravity

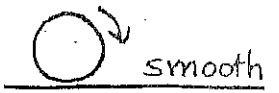



pulls to center of Earth

Friction



rough — more friction

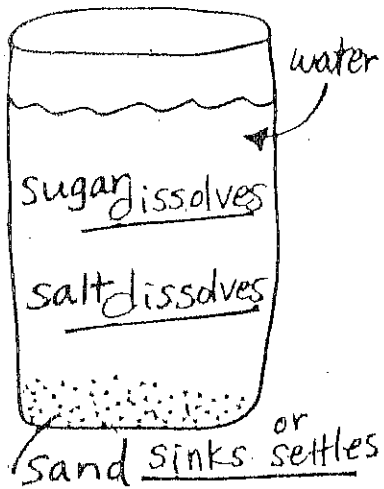


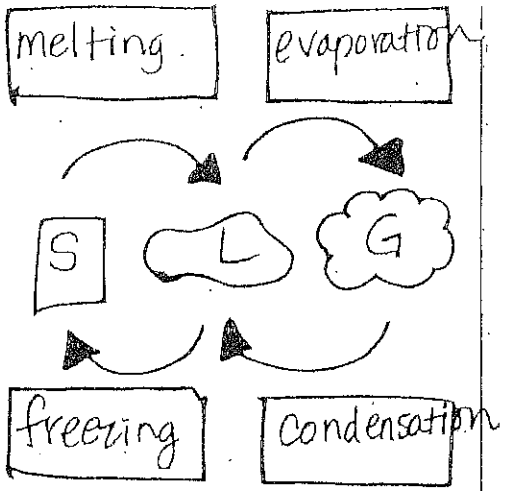
smooth — less friction

WEATHER: condition of the AIR outdoors — DAILY —

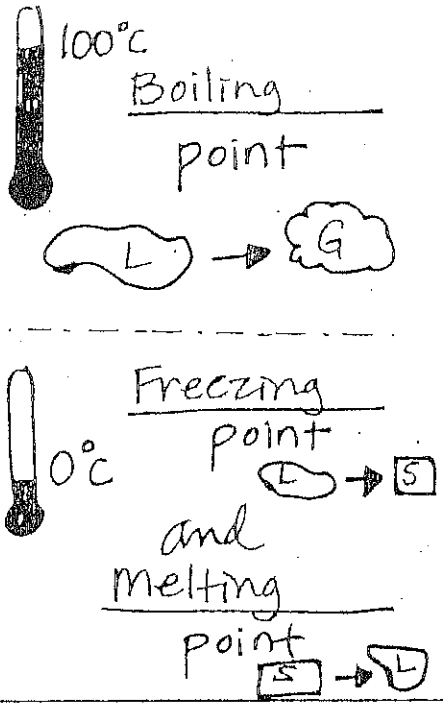
CLIMATE: average or typical weather condition over time — AT LEAST A SEASON —

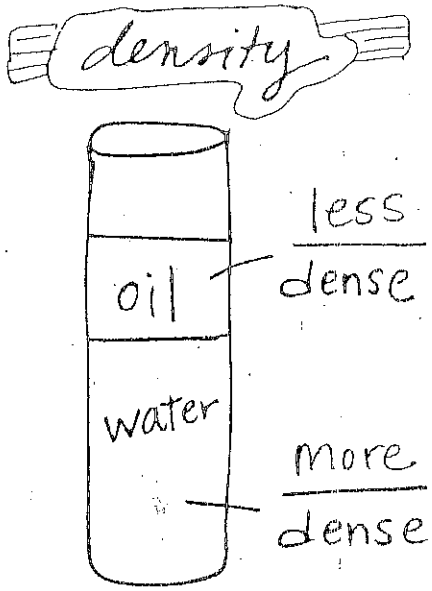
# SOLUBILITY



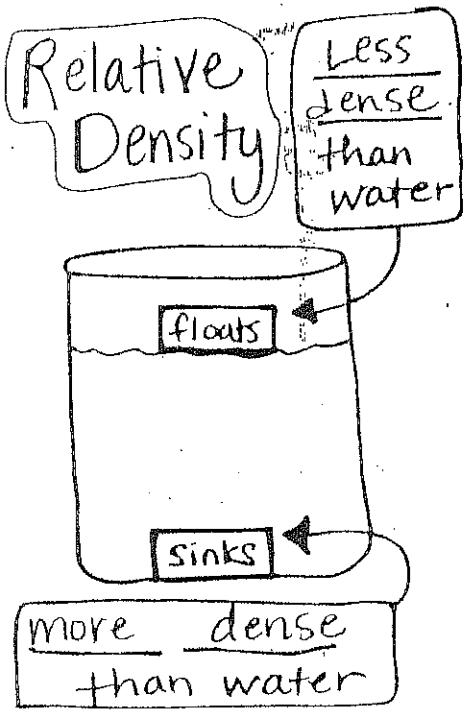




## states of MATTER




# Relative Density




## forms of energy

- **M**echanical (moving parts)
- **E**lectrical (electrons)
- **L**ight (visable see)
- **T**hermal (heat transfer)
- **S**ound (air vibrates)

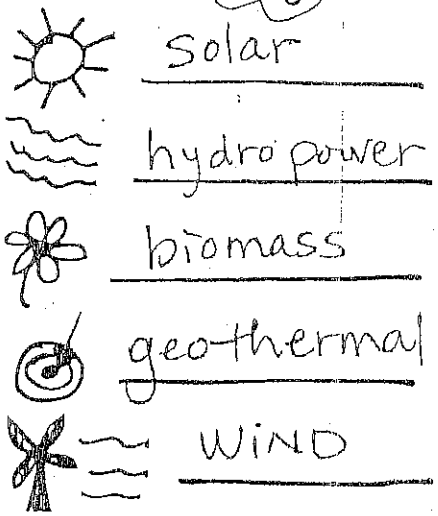
## MIXTURES:

- ★ can easily separate
- ★ keeps physical properties

## SOLUTIONS:

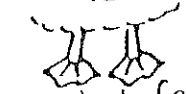
- ★ to separate evaporate
- ★ changes physical properties

## Renewable OR Alternative energy



## ADAPTATIONS

Structure: the body part




Function: What it does


## COMPLETE Metamorphosis

1. egg
2. larva
3. pupa
4. adult

## Inherited Traits:


traits from parents

## Learned Behaviors:

learn to do

## IN COMPLETE Metamorphosis

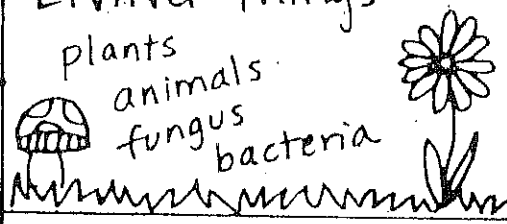
1. egg
2. nymph
3. adult

## ECOSYSTEM: a community of living and nonliving things

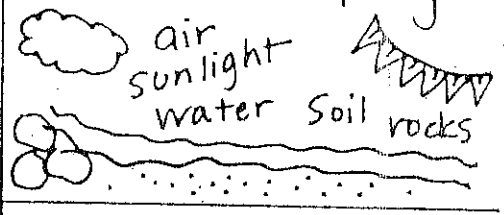
## INTERDEPENDENCY: When organisms depend on each other

All energy comes from the SUN

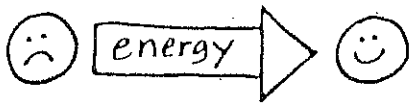
## LIVING things:




## NONLIVING things:



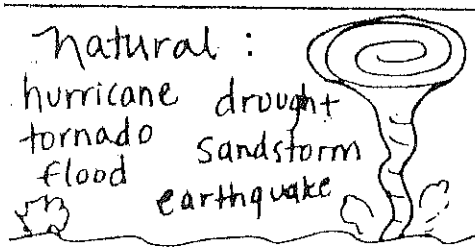

## FOOD CHAINS: the flow of



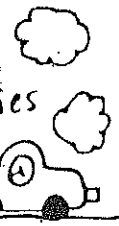

## FOOD WEBS: lots of food chains

## ENVIRONMENTAL changes

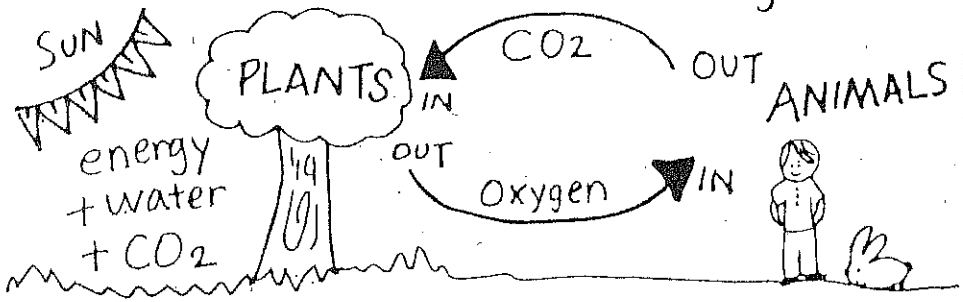
### Natural:




### man-made:




## CARBON DIOXIDE and OXYGEN cycle




## ELEMENTS of an ECOSYSTEM

### producer

uses suns energy to make its own food

### herbivore

eats plants

### consumer

eats other living things

### carnivore

eats only meats

### decomposer

breaks down dead organisms

### omnivore

eats both plants and meats