

### 3) Glacier fall

ICE FALL = one Ice Glacier is continuously falling on top of the other  
\* = most dangerous part of Everest

Marginal lake = Ice Blocked  
→ Huge Amounts of water (was trapped)  
(Leaves water rings marking) - i.e. Ring Around Tub.

## DEPOSITIONAL GLACIER (LANDFORMS.)

MORaine = generic name for majority Depositional Glaciers.

Terminal moraine → marks the farthest Pt. of Glacier (could make a dam and Block everything Below that Pt.)  
is called OUTWASH



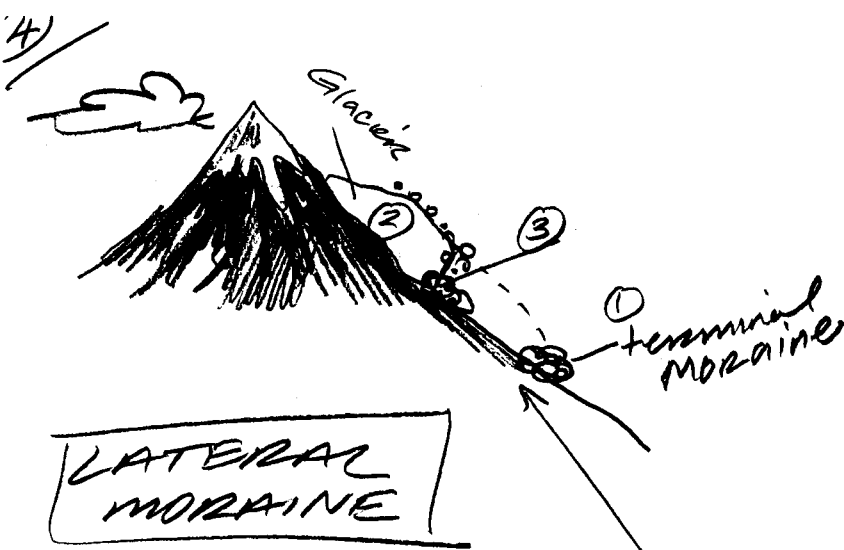
Called TERMINAL MORaine

WHEN WATER TRAVELS DOWN Mt. = it will sort out the sizes of Rocks.

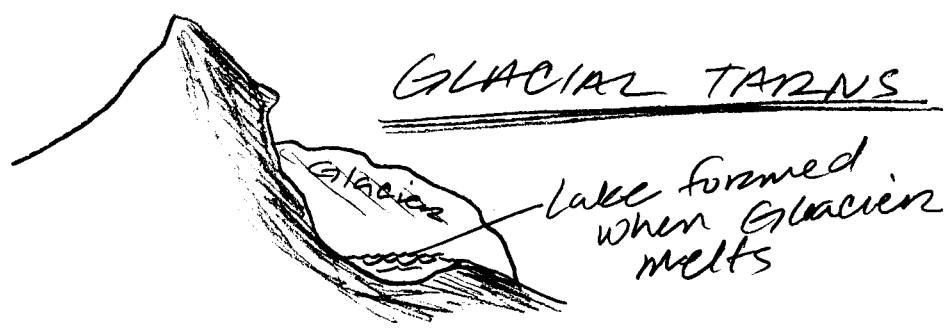
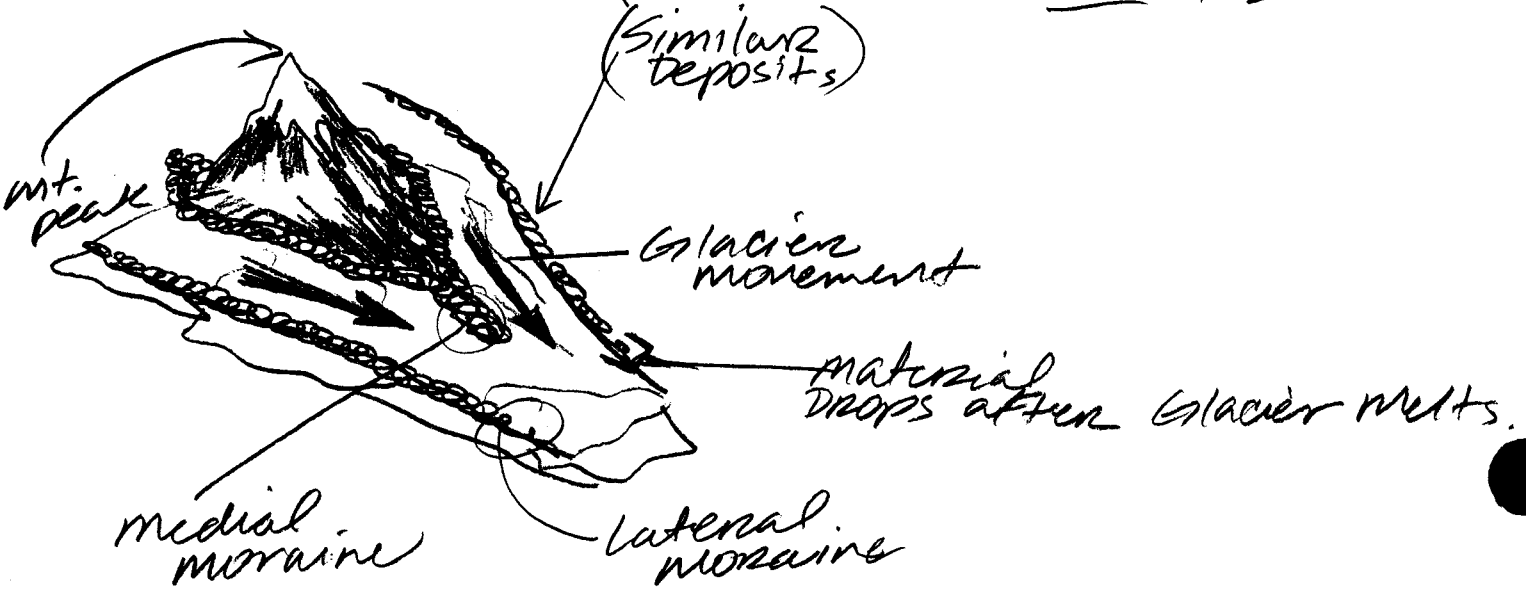
Largest → to Smallest

GLACIERS will NOT to that everything is all mixed up.



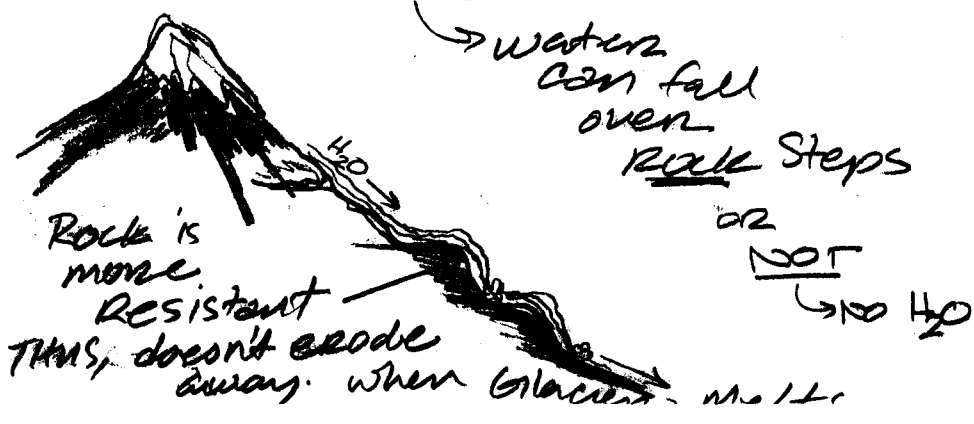


- ① oldest area pt. of Glacier being present.
- ② Glacier Advances up the mt. slope
- ③ Thus Rock, Dirt are left in Pile called RECESSIONAL



ROCK STEPS

Hangings Falls come in @ 90° into FALL (H<sub>2</sub>O)



5/ 5.4.00  
geog 2

27-3

left overs from after glacier past thru.

POST GLACIER NOTCH

LANDSLIDE LAKE

land slide makes an instantaneous Dam Blocks Stream → Thus, eventually makes a Lake.

Finger Lake

Stream Valleys = Glaciers come thru and Carve into it creating lakes that are all connected.

EX:  
Great Lakes

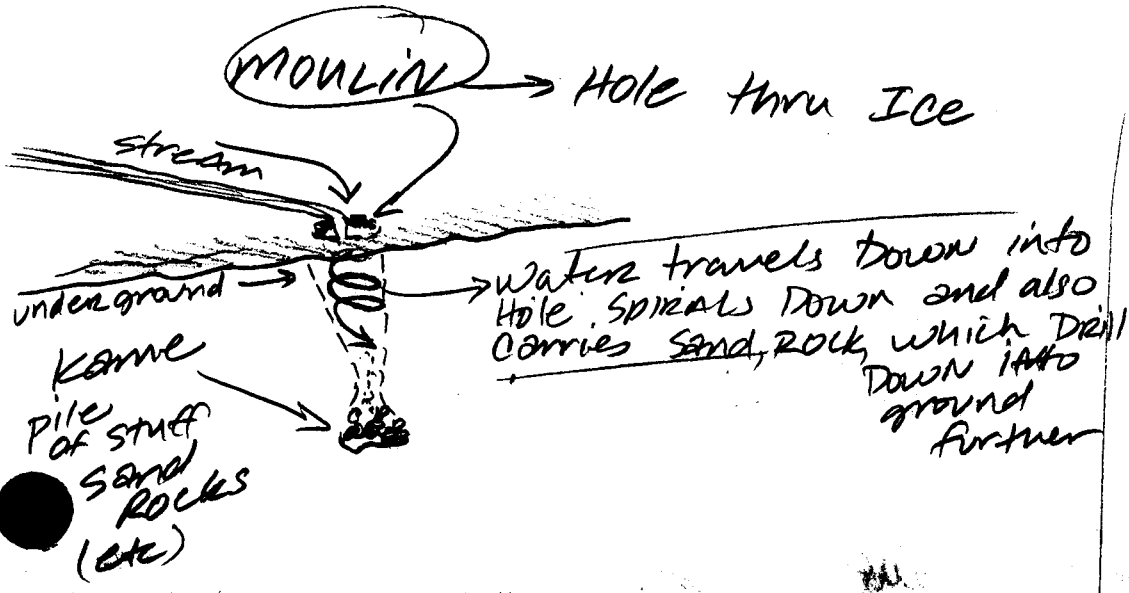
ALP - terrain in which Glaciers move over it.

CALIFORNIA - only has Mt. Valley & Alpine Glaciers.

ALL HAVE SIDES  
ALL HAVE LATERAL MORAIN.

(CONTINENTAL GLACIERS) = DON'T HAVE SIDES → THIS DON'T HAVE LATERAL MORAIN

Interlobate moraine - think bare feet step into mud. mud squishes Btw. toes.

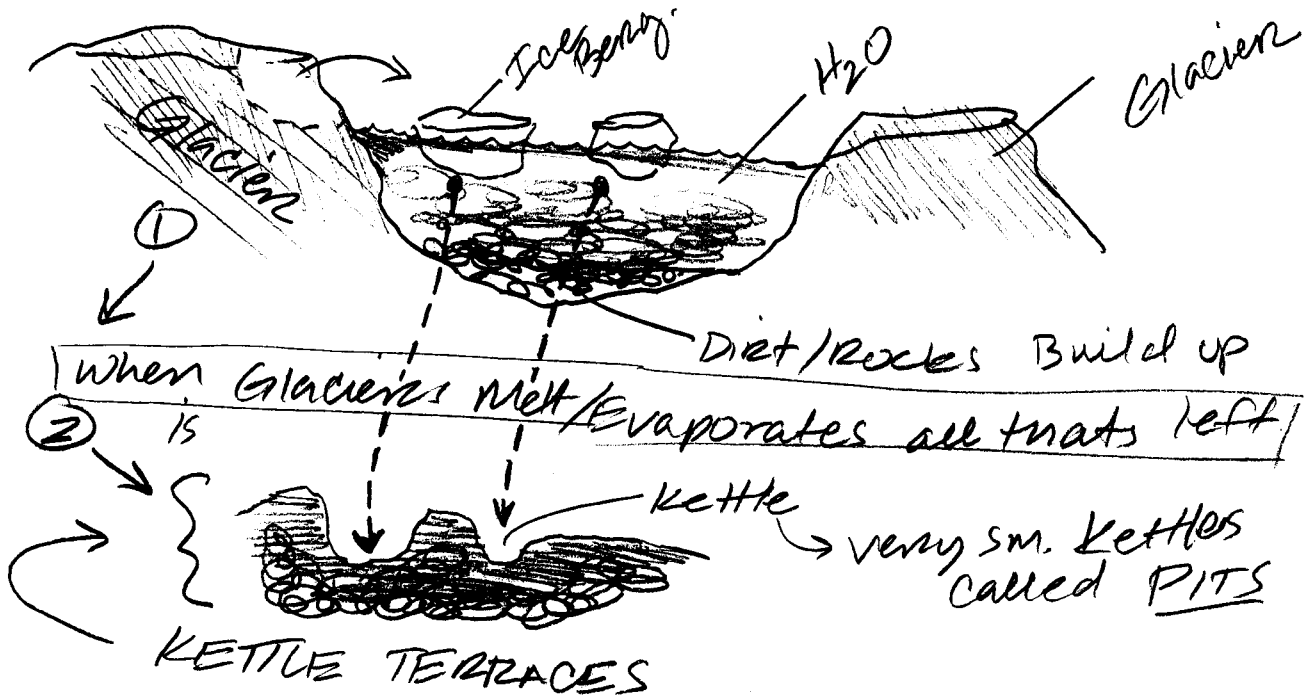


KAME  
Pile of stuff left by a glacier.

27-4  
⑥ POND FILLING - Finer mud Because  $H_2O$  wasn't moving that fast

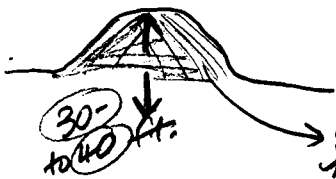
Tunnels of  $H_2O$  - Travel under Glaciers

ESKER - water that flows under Glaciers carries suspended LOAD → and when Glacier melts the left over rock/dirt etc. is left over

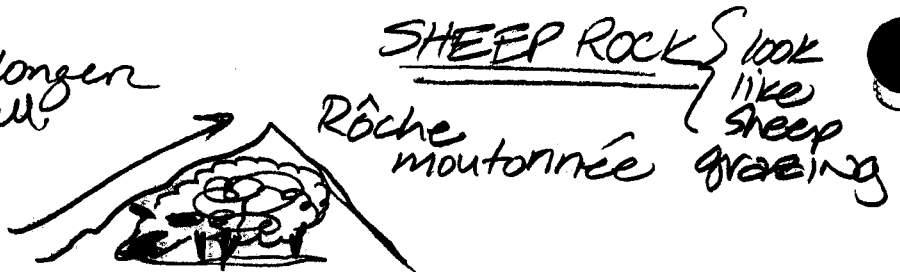


< Delta = is an aluvial fan formed under  $H_2O$  >

DRUMLINS - piles of rock and dirt (etc.) carved by glaciers  
→ Cigar shaped land forms.



→ about 3x's longer than it is tall



7) / Terminal Moraine:-

27-5

Area of Glaciers

ERRATICS

HUGE ROCKS THAT ONLY A GLACIER CAN MOVE. AND LOOKS DIFFERENT THAN THE ROCK AROUND IT.



FIND ROCK SIMILAR - TO DETERMINE HOW FAR ROCK TRAVELED.

→ ROCK THAT IS PUSHED AHEAD OF THE GLACIER (OR FROZEN IN ICE)

GLACIERS PRODUCE A DIFFERENT TYPE OF LANDSCAPE  
VERSUS H<sub>2</sub>O

① Quiz 1  
5.9.00

Final Exam → week from THIS THURS.

28-1

LAST CLASS → FINISHED GLACIAL LANDFORMS.

WIND LANDFORMS

→ also called Aeolian Landforms.

WIND needs to pick up material, in order to change and create land erosion.

\*idea of Being = SAND BLASTED

Like Glaciers were restricted to higher altitudes

WINDS - to change land → and create landforms will occur on areas w/ a lack of vegetation

THE RESIDUAL WIND LANDFORMS ARE sometimes called "Mushroom Rocks."

① Rock

②

wind blowing

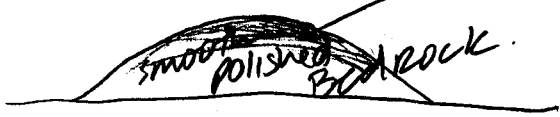
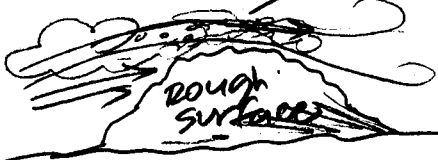
③

most erosion occurs @ the base of the rock.

HAMADA

sand carried in wind polish of the rock process = HAMADA

Hamada Surface

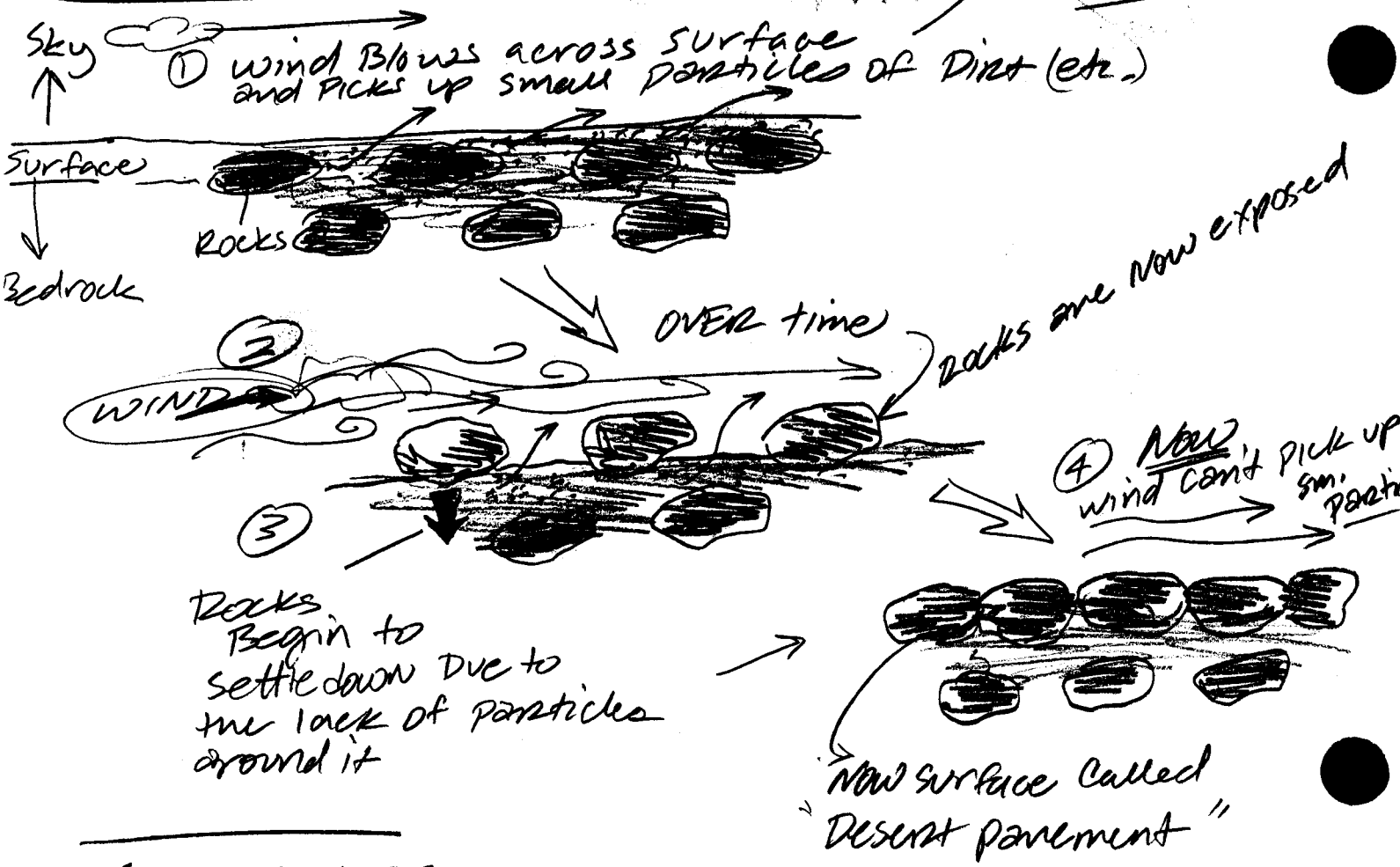


Idea of Desert Varnish = when it rains minerals dissolve into the rock.

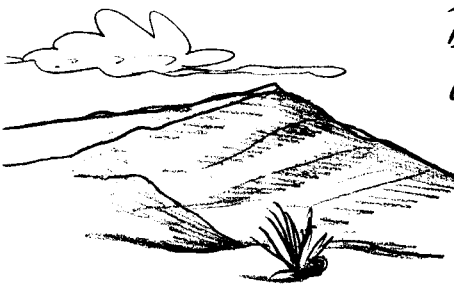
when it dries H<sub>2</sub>O evaporates and minerals get brought up to the surface of the rock

# DESERT PAVEMENT

Causes ALot of Particle pollution



# SAND DUNES



is a depositional landform made by the wind.

WIND - shapes the sand  
 cuz' sand get carried away by sand.

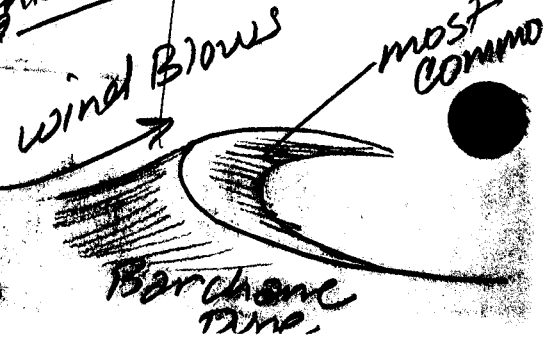
Sand Dunes are ALWAYS being Reshaped. and they also migrate

Place in Oregon (4x4)

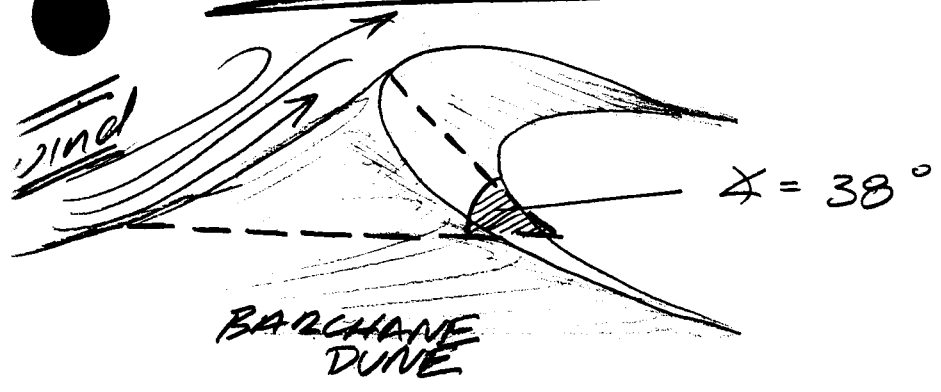
## TYPES

1. Strong wind Blows → LONGITUDINAL DUNES
2. Gentle wind Blows → TRANSVERSE DUNES

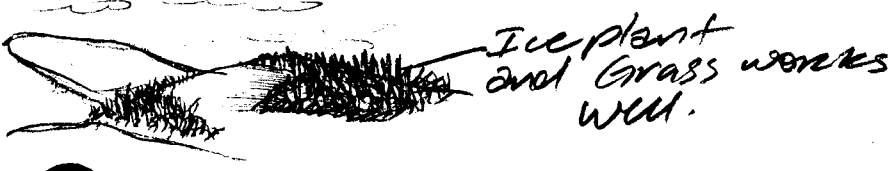
These together are called INTERMEDIATE



ANGLE OF REPOSE =  $38^\circ$  → any steeper and the sand won't stay.



? How do you stop a DUNE from migrating?  
 - need to plant vegetation on to the dune to stabilize it.



STATIONARY DUNES → occur in areas where the sand dunes stay in one place → cuz, winds change blowing directions.

WAVES



THE BEACHES AND TROPICS ARE THINGS THAT SAVE THE CLIFFS AND HEAD LAND.

EROSION make - SEACAVES & CLEFTS

WHAT MAKES WAVES

① WIND ENERGY → TRANSDUCES → INTO the OCEAN.

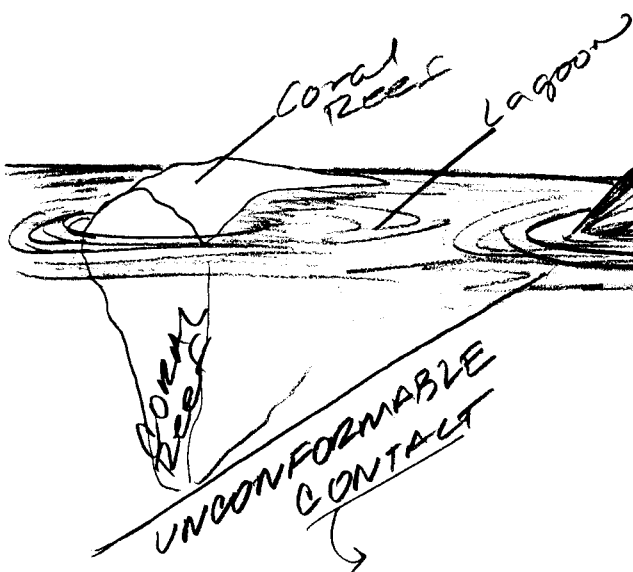
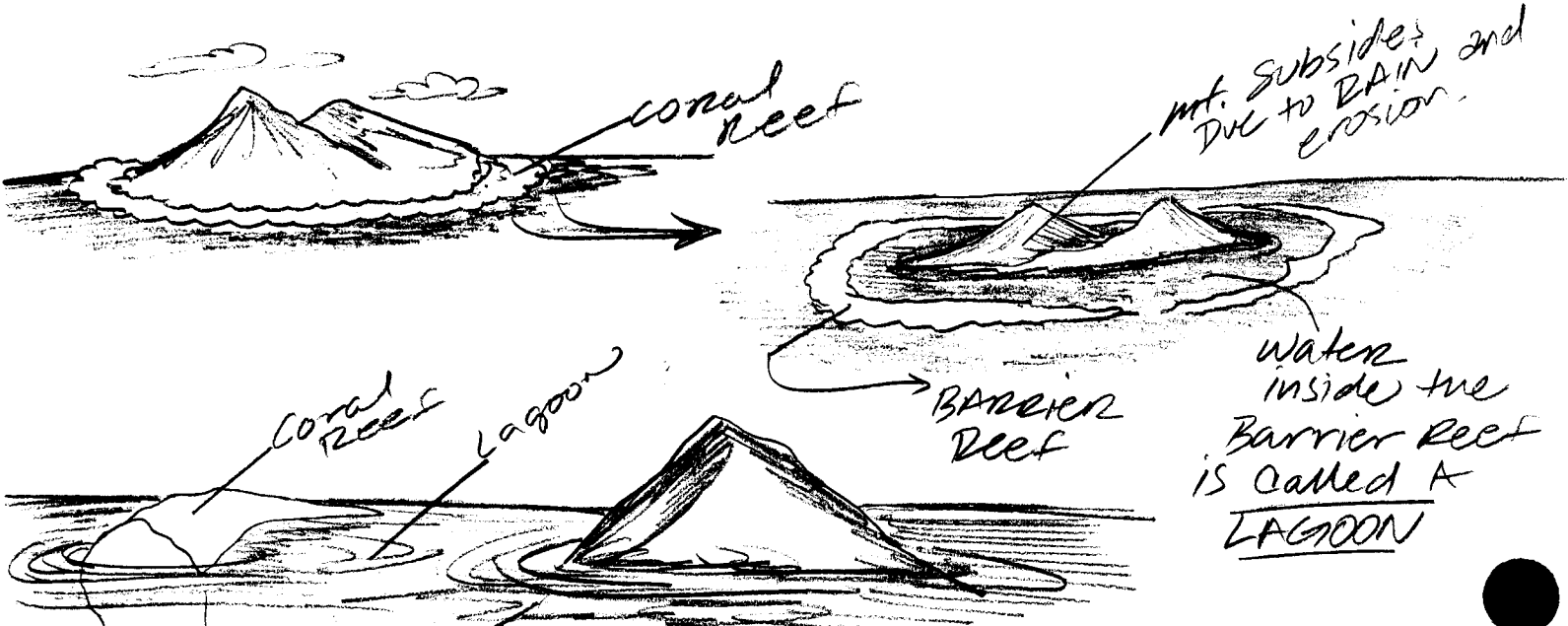
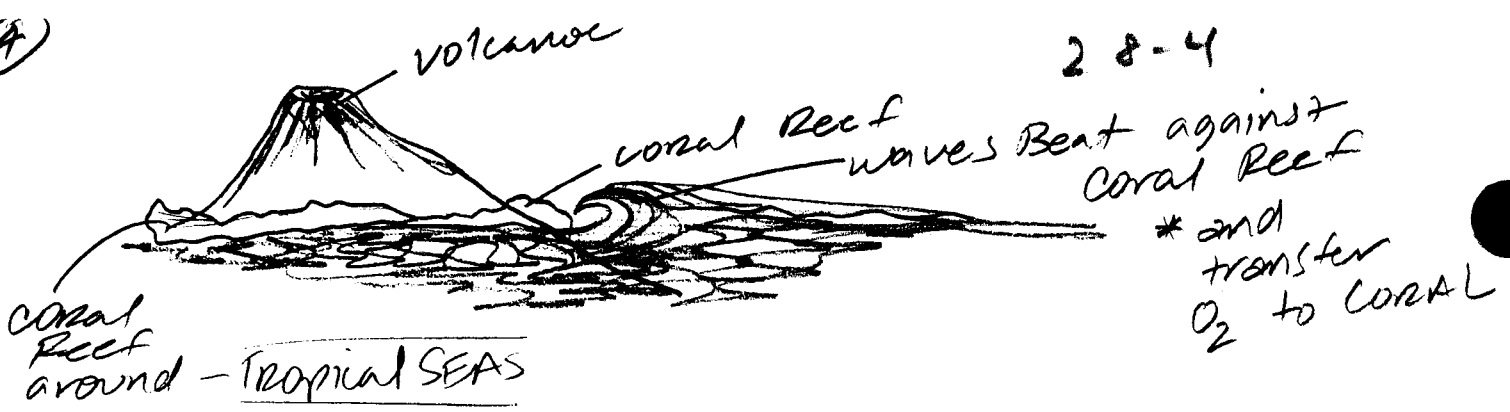
① (wind)



is changing from one energy form to another

(4)

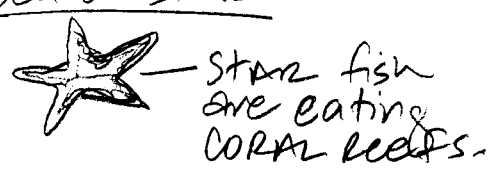
28-4



EX: Sand and Solid Rock  
 Geological time is (Broken up)

Coral Reef → is Dying Due to;

\* Sea of Stars



\* Pollution - Also

VIDEO (NOTES)

"BEACHES AND HOW THEY ARE FORMED"

Felspar & Quartz ⇒ tiny grains make up the Beaches in California

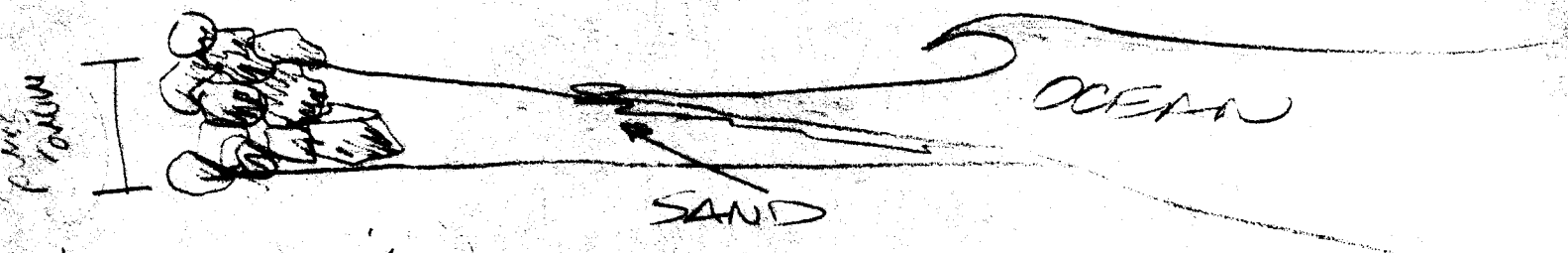
- 1) Streams carries Rock Debris and carries it out to the OCEAN
- 2) When wave washes up onto shore = it picks up Hundreds of Thousands

Carries them away and Reshapes the Idea

SEASONS will change the effect/appearance of the beach

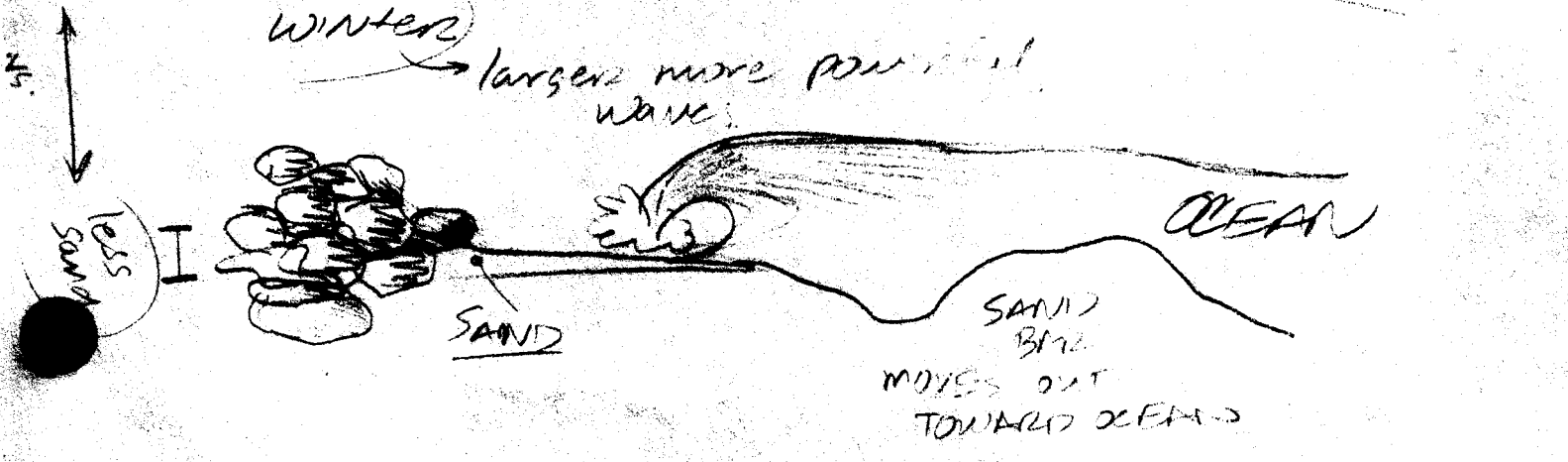
SUMMER

smaller waves not as strong



WINTER

larger more powerful waves

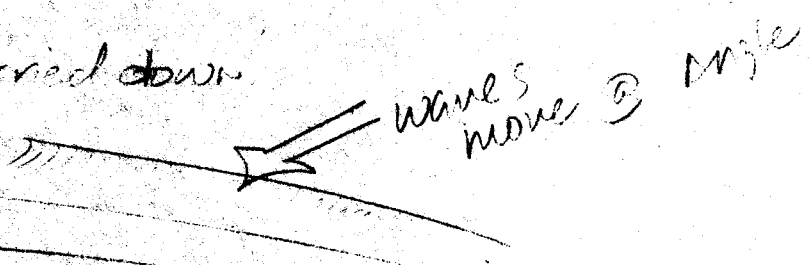


LONG SHORE CURRENTS

Waves come on shore @ an angle and Bend

LONG SHORE TRANSPORT

SAND gets carried down

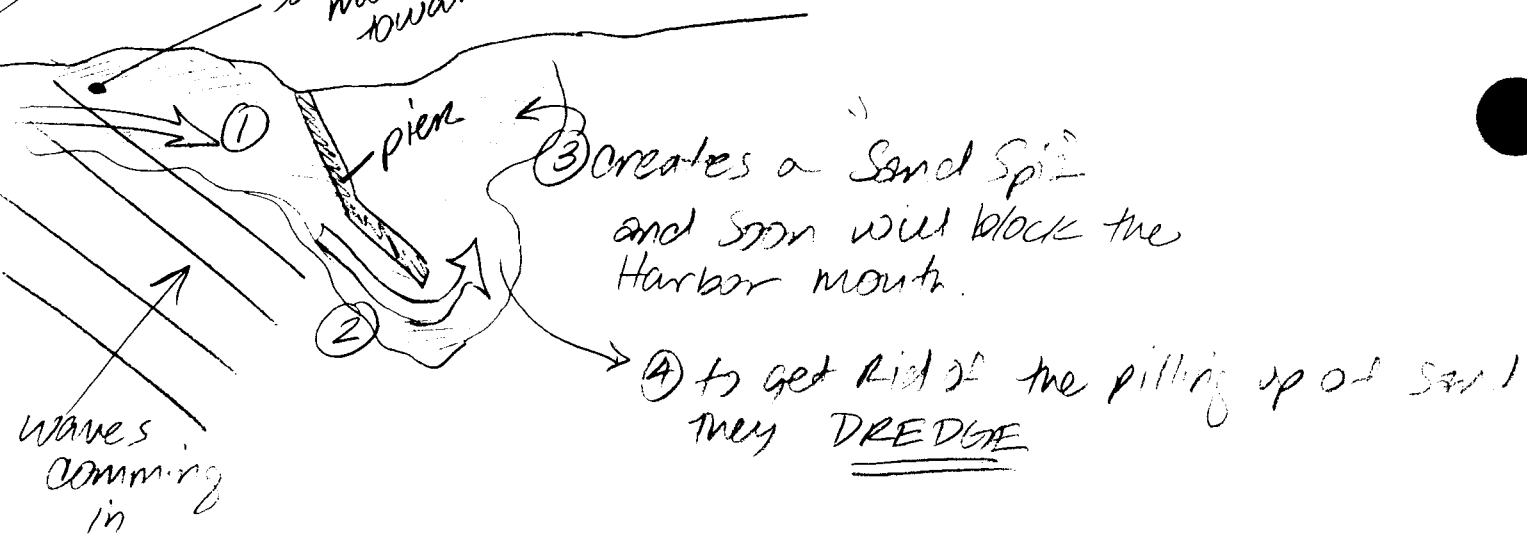


(THINK OF AS A RIVER OF SAND)

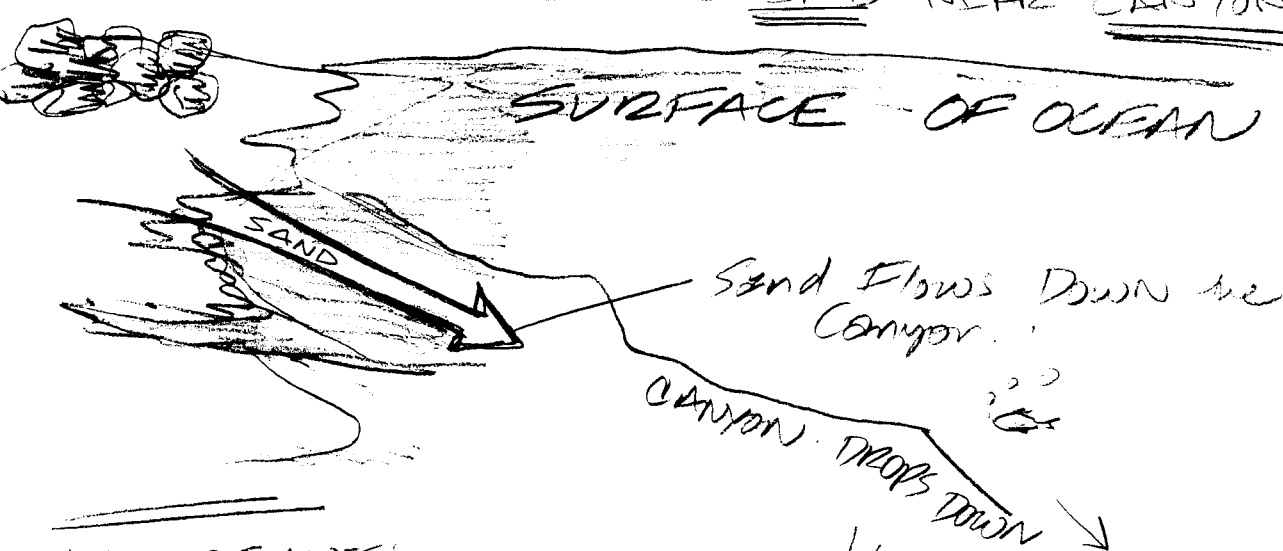
SAND GET CARRIED AND MOVES TO THE SOUTH

⑥

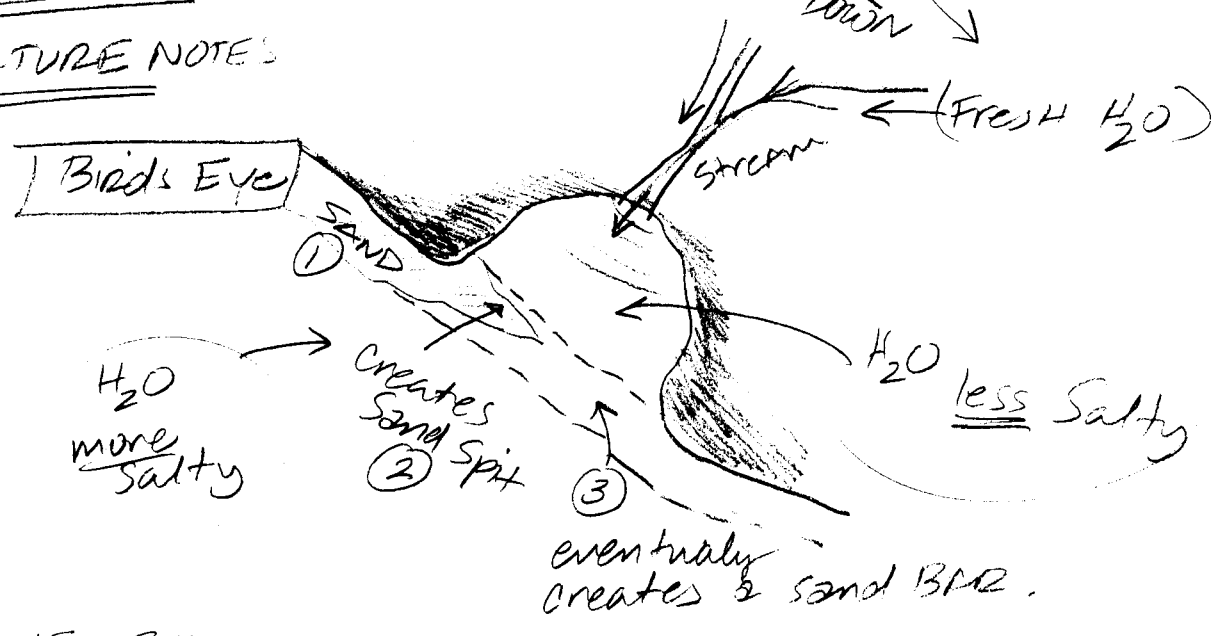
sand moves in toward HARBOR



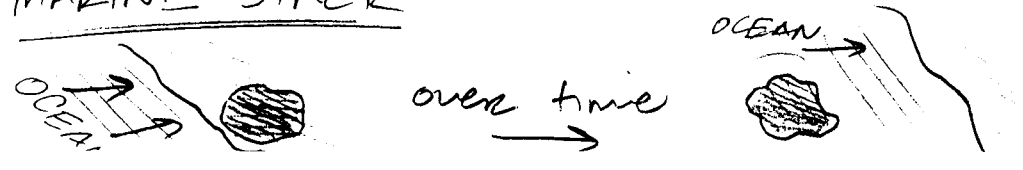
BEACHES WILL TEND TO END NEAR CANYONS (SUBMERGED)



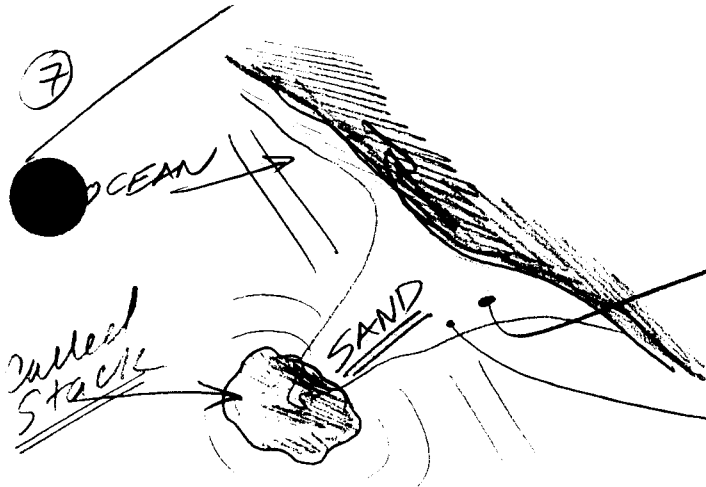
LECTURE NOTES



MARINE STACK



⑦

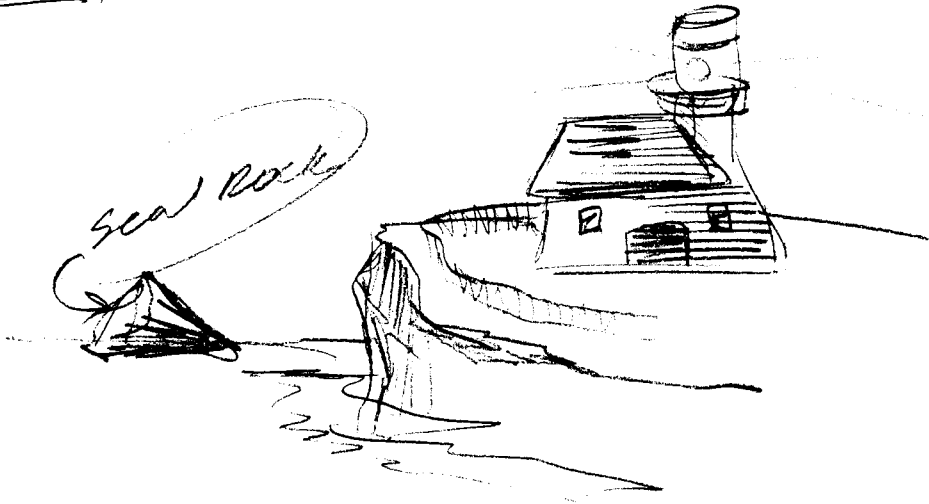


called A Tombolo

A sand Bar that stretches from the Beach/coast out to a Stack

may get covered up during High tide (w/ H<sub>2</sub>O)

LOCALLY Here in Santa Cruz



NOTES  
GEOG 1

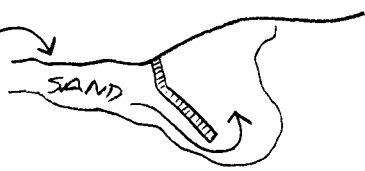
Final Exam Orange (SCANTRON)

THURS. MAY 18th

also - Have T or F (or) ESSAY FORMAT

Review →

Sand spit - connects to a Headland and moves toward south.



Demography -

∴ Studying Populations of Human Beings

- what is physical Geography?  
Refer to notes @ Beginning of class

#s of People

Today's Earth's population 6.0 Billion

(THINK OF DOUBLING RATE)

about every 1000 yrs. the earth's population doubles

- Agricultural Discoveries technology

Estimated around 5 B.C. → pop. 5 million

As population increases, more and more; the Doubling Rate time span in years decreases

1850 - 1930 - Double Rate

Current = today's Doubling Rate is 37 years

EARTH ABIDES Book written in the 40s

JAY CURVE

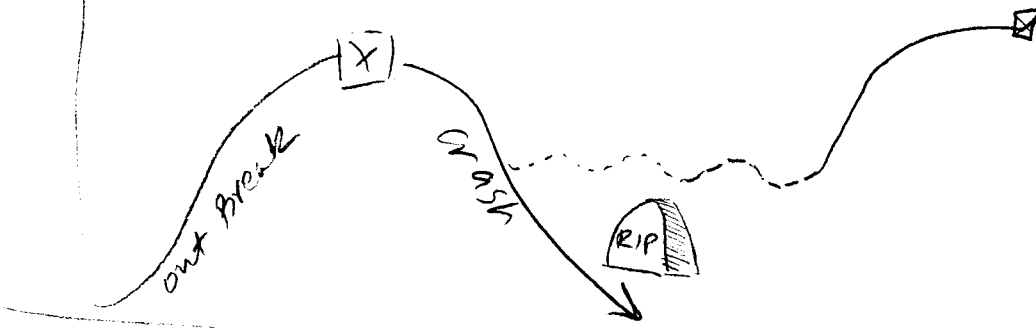
Author shows you how people have simplified the ecosystems for the other animals.

Thus, if people disappear what happens



time

\* As population increases → sometimes Disease will be brought over.



\* outbreak crash sequences occur frequently w/ all animals - THINK OF ANTS



Doubling Rate

Developing Nations =  
20-30yr. Range  
(Doubling rate)

Indonesia - 21 yrs  
Kenya - 28 yrs.

El Salvador = 19 yrs.  
Costa Rica = 20 yrs.

Have more kids -  
- cuz' their worth money  
- they tend to die early

infant mortality  
die from  
Disease  
and starvation

Countries - least able  
to provide food  
- birth control  
- culture.

TECHNOLOGY ADVANCED  
NATIONS

Double Rate is around  
50 years. - 80 yrs.  
USA / Russia

Economically cheaper  
to raise fewer kids

population grows - as long as the Birth Rate exceeds the  
Death Rate.

3 Solutions to problem -

1. Death Rate Solution
2. Birth Rate Solution
3. Combo of Both above.

③ 5.11.00

# [TERRA] video

29-3

## Food & people

- ↳ idea what did you have for Dinner last Night
- Nearly 1/2 the people who die are children ages 6 or under
- Grain = takes more grain to get just 1 lb. of meat

Eutrophication = means over fed.

IDEA  
 Green Revolution  
 ↳ Genetic Alteration of plants.

↳ TOO MUCH Fertilizer on land travels to stream

↳ only 10 countries export food; out of the 170 countries

How many people can world support → on avg. only 1 Billion

Is EARTH capable to support today's population.

in Ohio → River was so polluted and caught on fire

Book - good ex. of how Geographers THINK.

15

Air pollution → majority caused by cars

power plants → Oil / coal / gas

Idea: Alice in Wonderland  
 mad Hatter  
 metal mercury found in the stiffening of hats.

Nuclear power plant / Thermal pollution

clear cutting also → ↑ pollution

↳ Dumping trash  
 ↳ pesticides

DDT - very bad for birds  
makes egg shells so thin  
birds embryos die

ends up in food chain

LONG SHORE TRANSPORT

transports collection of sand as well as what ever is within the sand.

Fish caught at Santa Monica pier

[VIDEO] "welcome to Hell"

EAST GERMANY → Bitterfeld TOWN one of worlds most polluted areas.

Result of Environmental Devistation ← Chemical production places.

Sulfur Dioxide - causes Acid Rain and Lung Damage

10yrs. Drop line @ Cabrillo