Warm-up Week 13 Day 2

1. **Describe** Convection in your own words.

2. **How** is the crust destroyed at convergent boundaries?

3. **How** does the ocean floor grow bigger?

Warm-up Week 13 Day 2

1. **Describe** Convection in your own words.

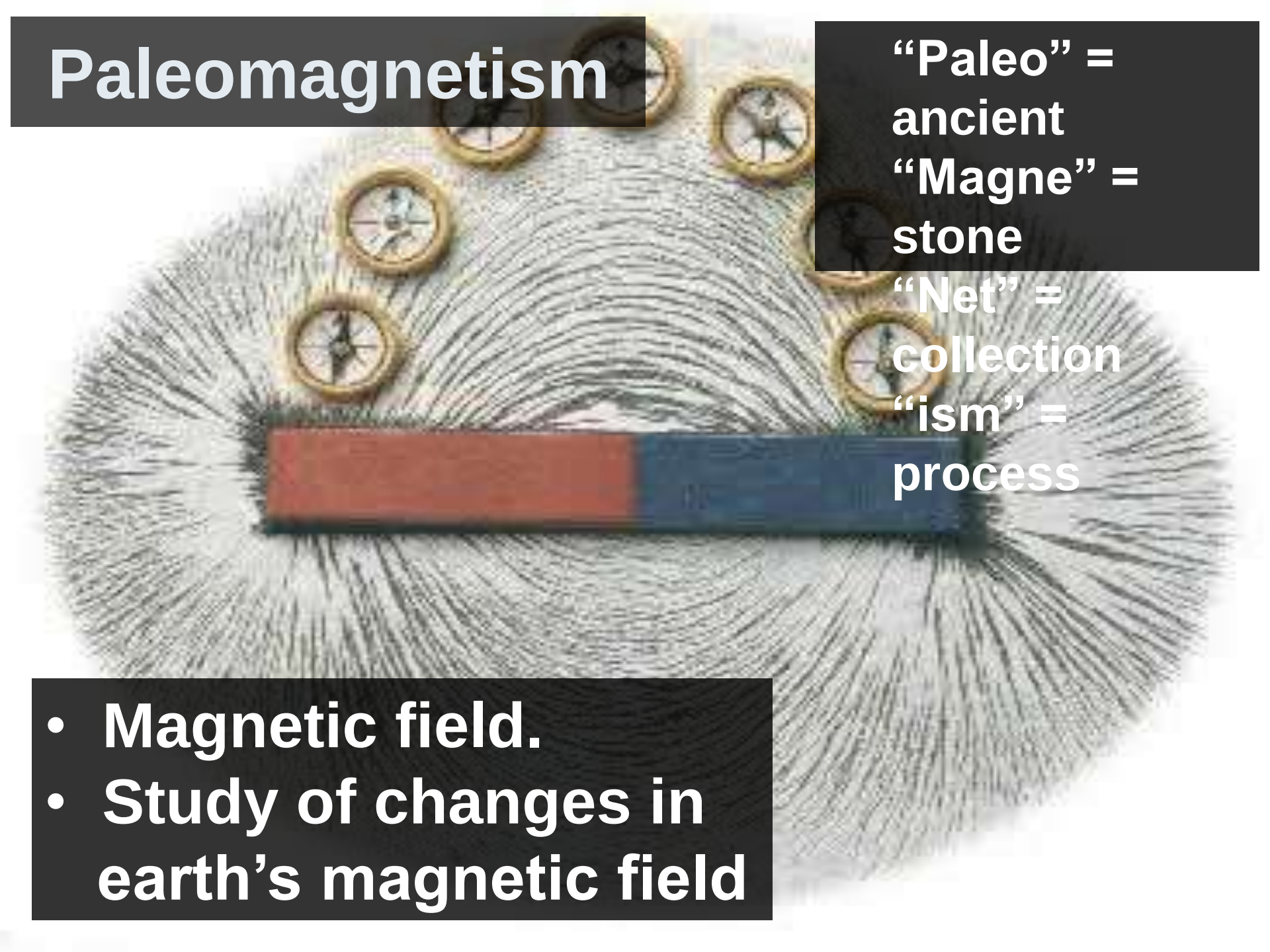
   Which type of plate boundary does each scenario represent?

2. Nick **punches** Mr. J in the face.
3. You cut your finger and a **scab forms**.
4. **Handshake** at the end of a soccer game.

“Testing Plate Tectonics”

9.4 & 9.5

Paleomagnetism



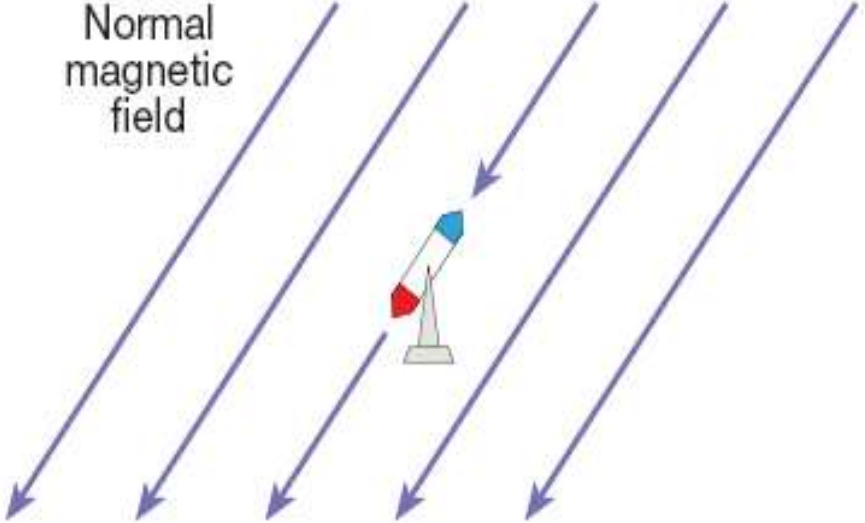
"Paleo" = ancient
"Magne" = stone
"Net" = collection
"ism" = process

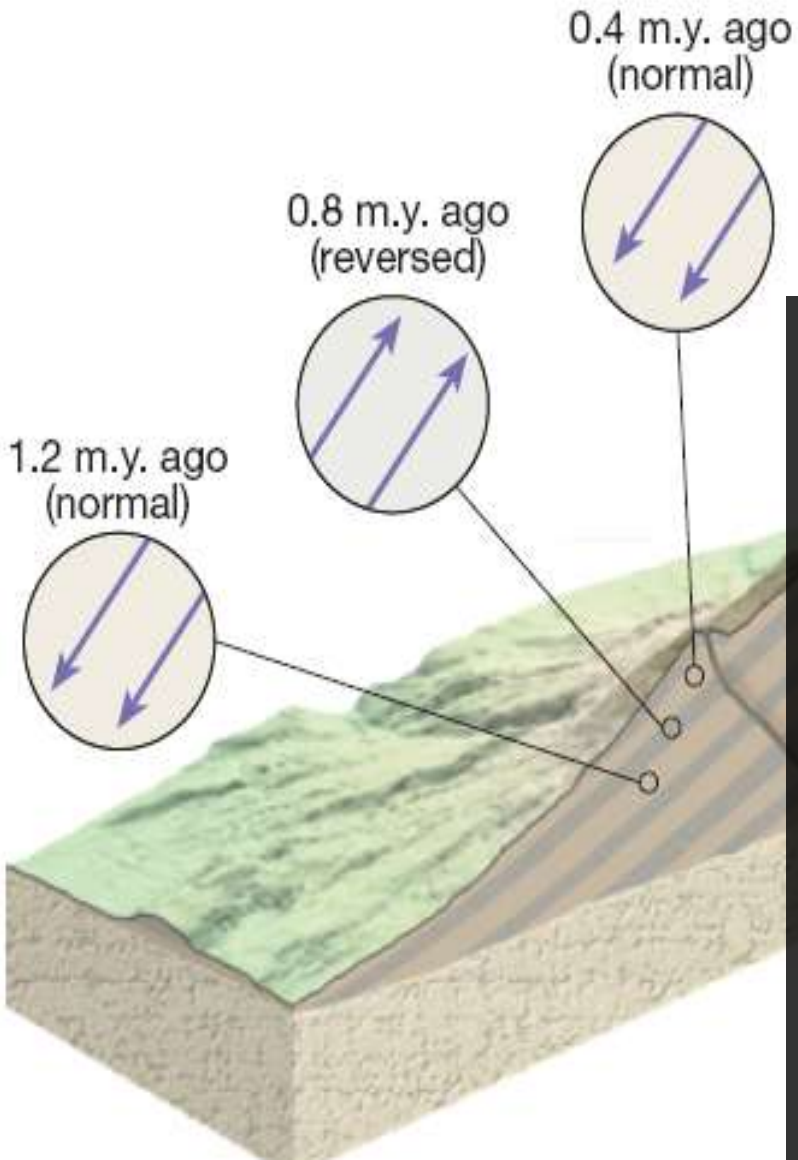
- Magnetic field.
- Study of changes in earth's magnetic field

Heat & Magnets

- **Too hot!**
  - ↓ magnetism.
- **Cool again…**
  - ↑ magnetism.
  - Points toward poles.
  - Compass!

Polarity?!





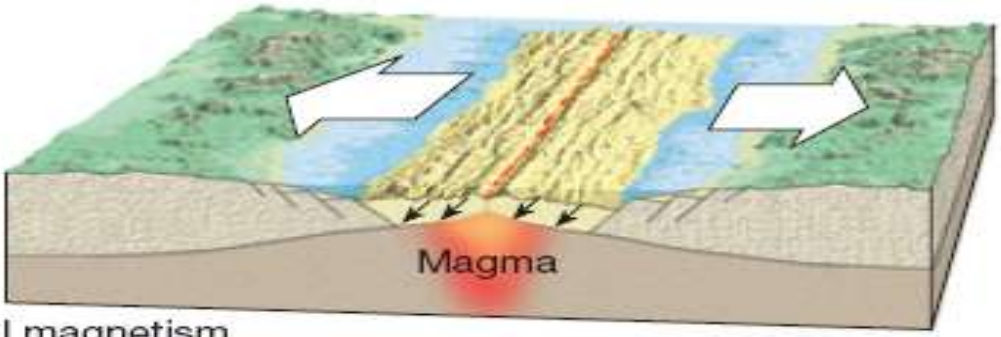
How magnetic?

- **Normal polarity**
  - **Same** direction as today
- **Reverse polarity**
  - **Opposite** direction

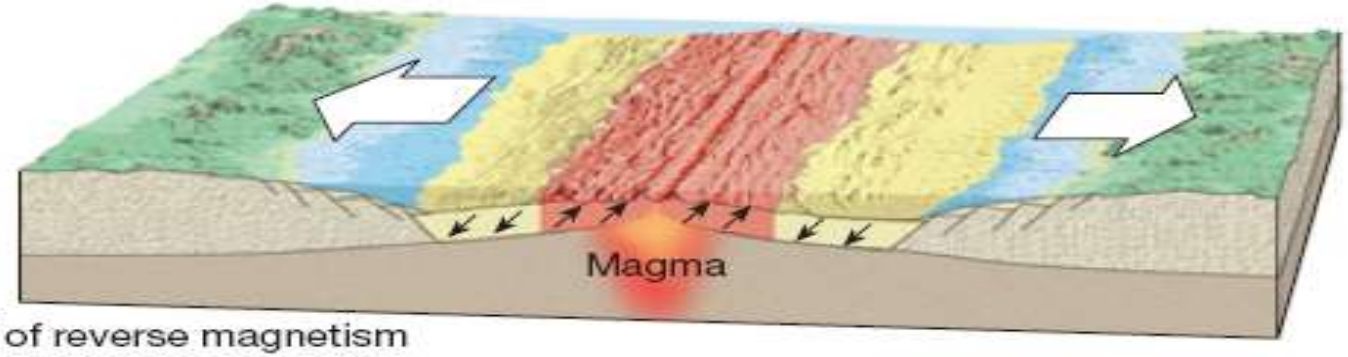
Seafloor spreading

1. Youngest → ridge.
2. Oldest → farther.

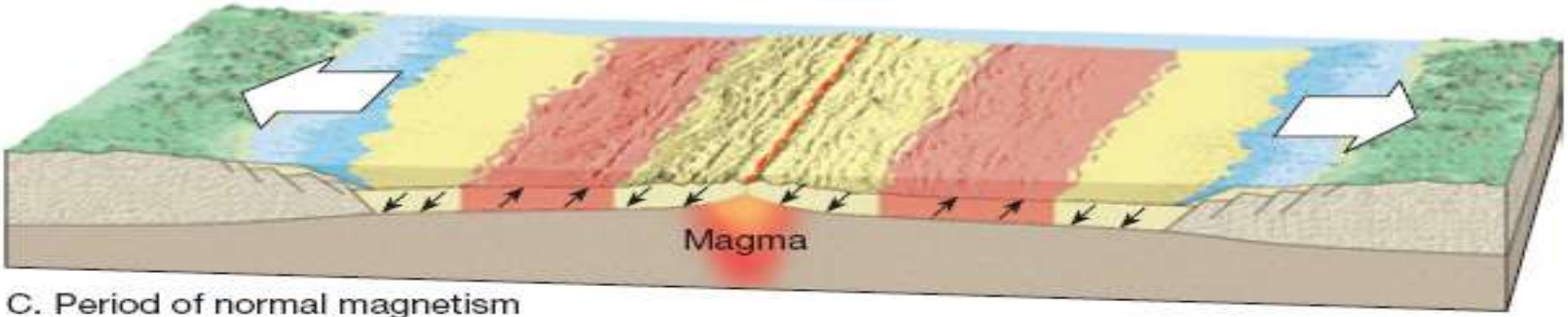
Magnetic Reversals in Seafloor Spreading



A. Period of normal magnetism

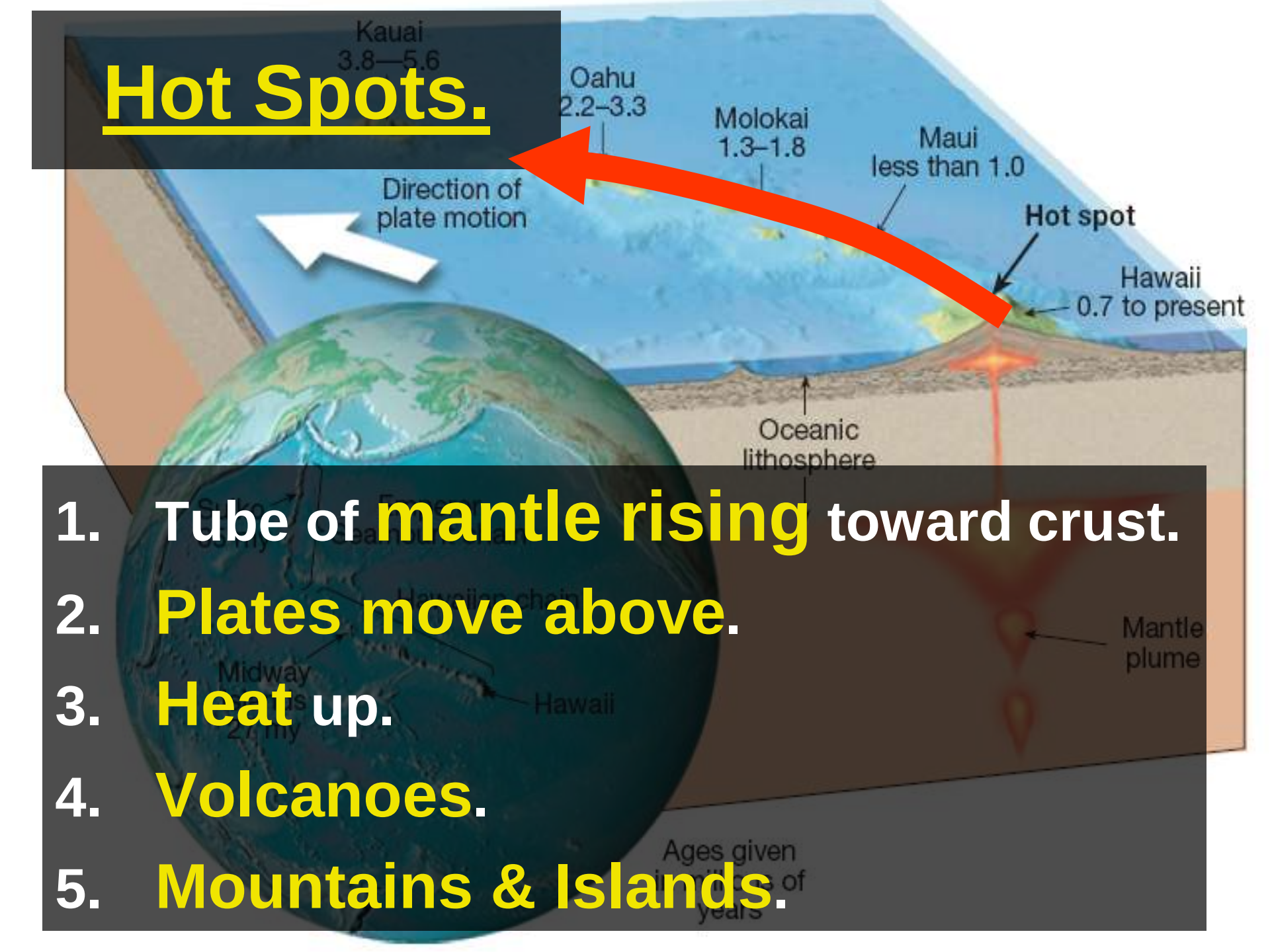


B. Period of reverse magnetism



C. Period of normal magnetism

Hot Spots.



1. Tube of **mantle rising** toward crust.
2. **Plates move above**.
3. **Heat** up.
4. **Volcanoes**.
5. **Mountains & Islands**.

Recall: Convection…

1. Cycle of heat
2. Unequal temp^{o}
3. Swirls liquid mantle
4. Plates float on top.
5. Plate move with “current”

Convection causes plates to move.

Q: What makes things move?

Pushes!

Pulls!

“FORCES”

Q: What makes **plates** move?

1. Ridge-Push

- **Divergent** boundary
- Creation of **Ocean ridge**
- **“Pushes” crust** out of the way
- **Caused by gravity!**

2. Slab-Pull

- **Convergent** boundary
- **Subduction**
- **“Pulls” crust** along with it!