

# *Earth Science*

With

Mr. Thomas



# Mountains

## ► Definition:

- A large mass of rock that rises a great distance above its base.
- Most of the world's mts. Occur in long belts that tend to follow converging plate boundaries, like along *continental margins* – the boundary between continental crust & oceanic crust.

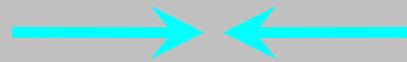
# Mountains

## ▶ How Mountains Form:

- **Stress:** Applied at converging plate boundaries causing rocks to become fractured.

• There are 3 types of stress:

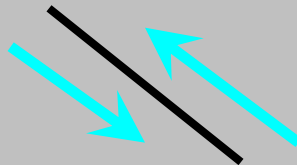
1) Compression



2) Tension



3) Shear

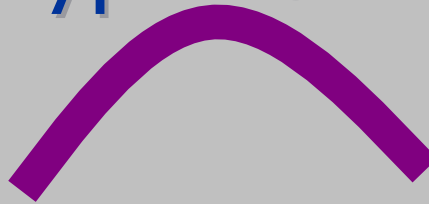


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## ▶ How Mountains Form:

- **Folds:** Crumpled rock layers that occur during plate collisions.
- There are 2 types of folds:

1) Anticline



2) Syncline



# Mountains

## ▶ How Mountains Form:

- **Faults:** Boundary between 2 plates.
- There are 4 types of Faults:
  - 1) Normal
  - 2) Reverse
  - 3) Thrust
  - 4) Strike-Slip

# Mountains

## - Normal Faults

- Occur when the hanging wall moves down with respect to the footwall (tension is pulling the crust apart).

## - Reverse Faults

- Occur when the hanging wall moves up with respect to the footwall (compression pushes crust together)

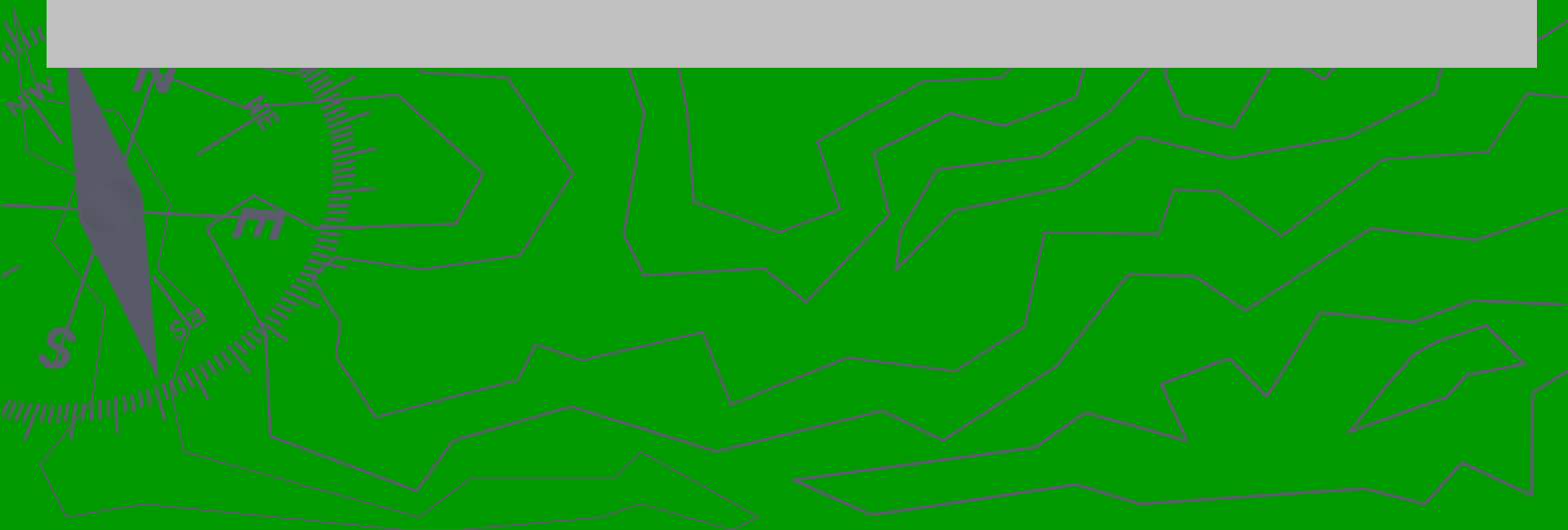
## - Thrust Faults

- Occur when a reverse fault plane is 45 degrees or less from horizontal.

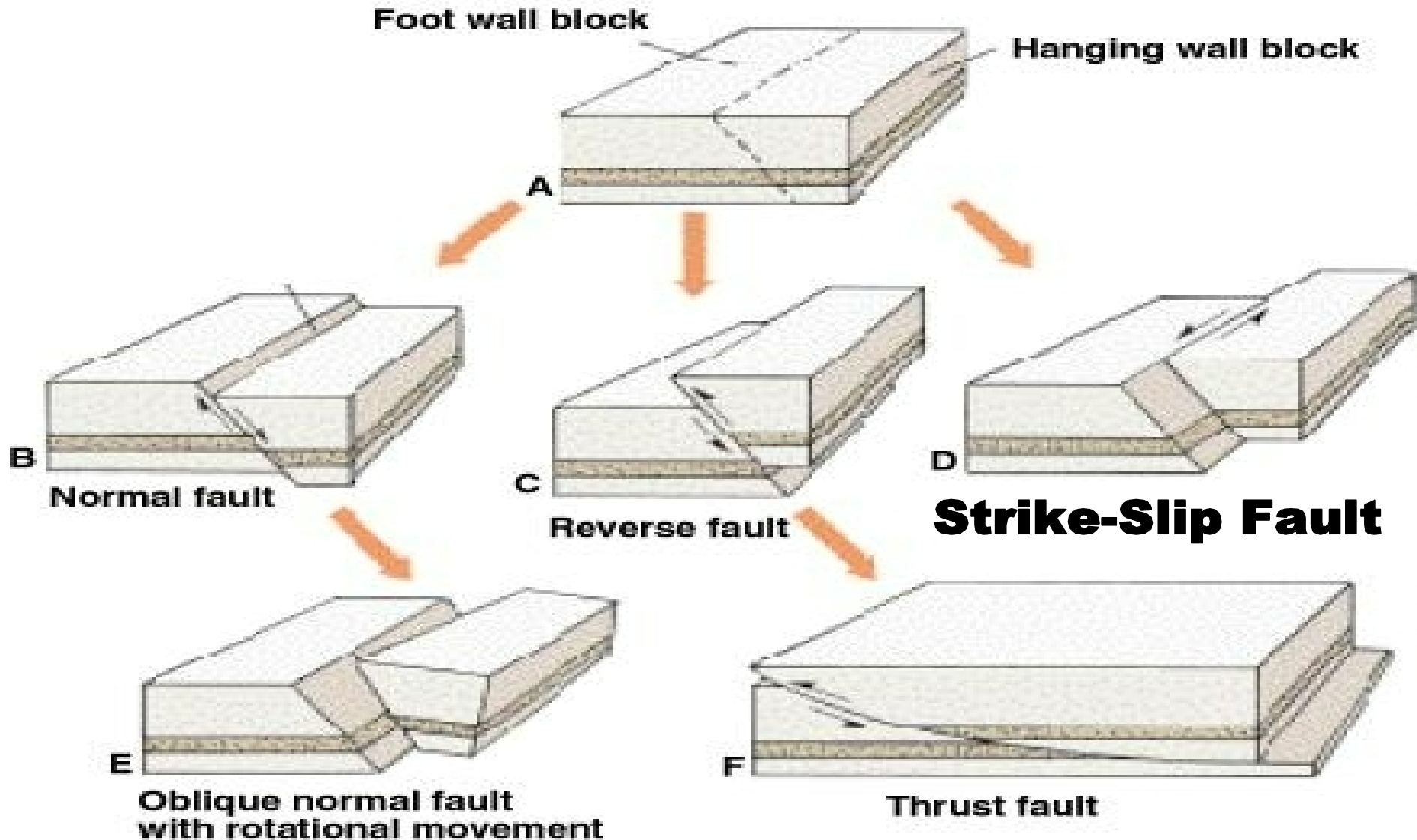
# Mountains

## - Strike-Slip Faults

- Occur when the rocks on either side of a fault move in opposite directions past each other.



# Mountains





That's it

