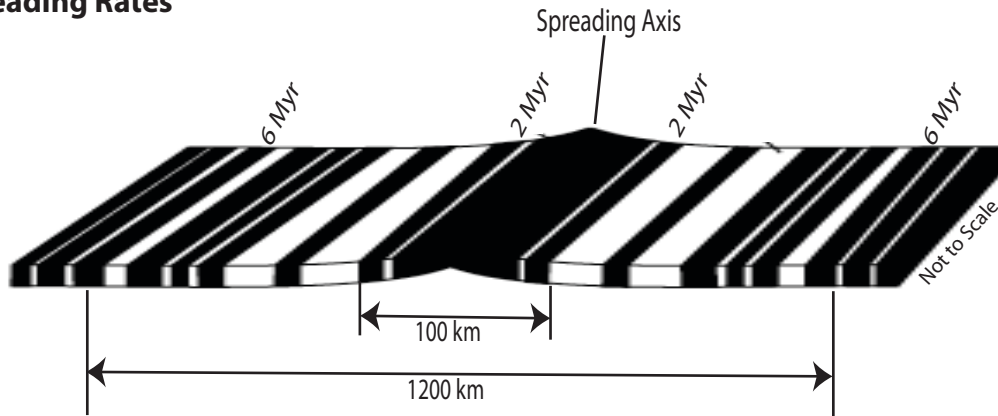


Part A: Spreading Rates

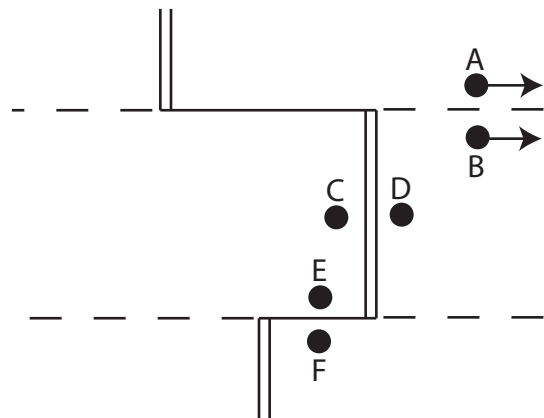


To calculate the Full Spreading Rate (FSR) of a spreading center, you must figure out how much new seafloor was created on each side of the spreading center in how many years. For example, if 200 km of seafloor was created on each side (400 km total) in 10 Million years, the FSR is 40 km/Myr ($400\text{km} \div 10\text{Myr}$). Using the diagram above, answer the following questions:

- 1) What is the average FSR during the most recent 2 Myr?
- 2) What is the average FSR during the most recent 6 Myr?
- 3) Has the spreading rate changed at all in the past 6 Myr? How do you know?
- 4) Was the spreading rate fast, intermediate, or slow 6 Myr ago? _____

Part B: Spreading Center Features

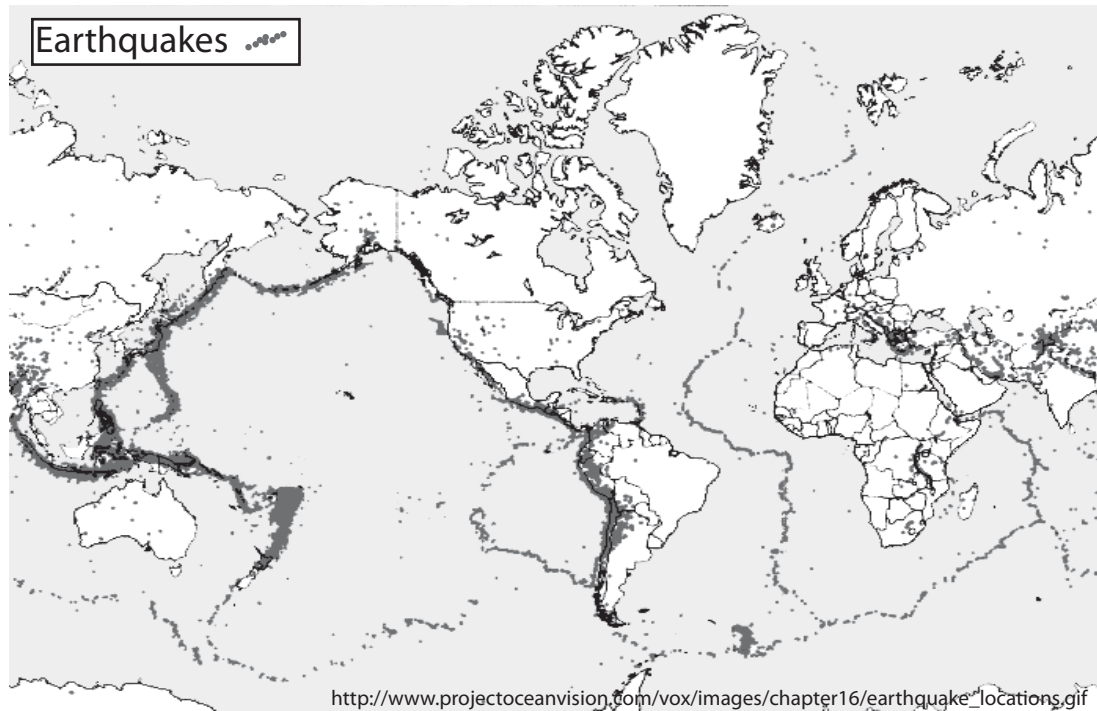
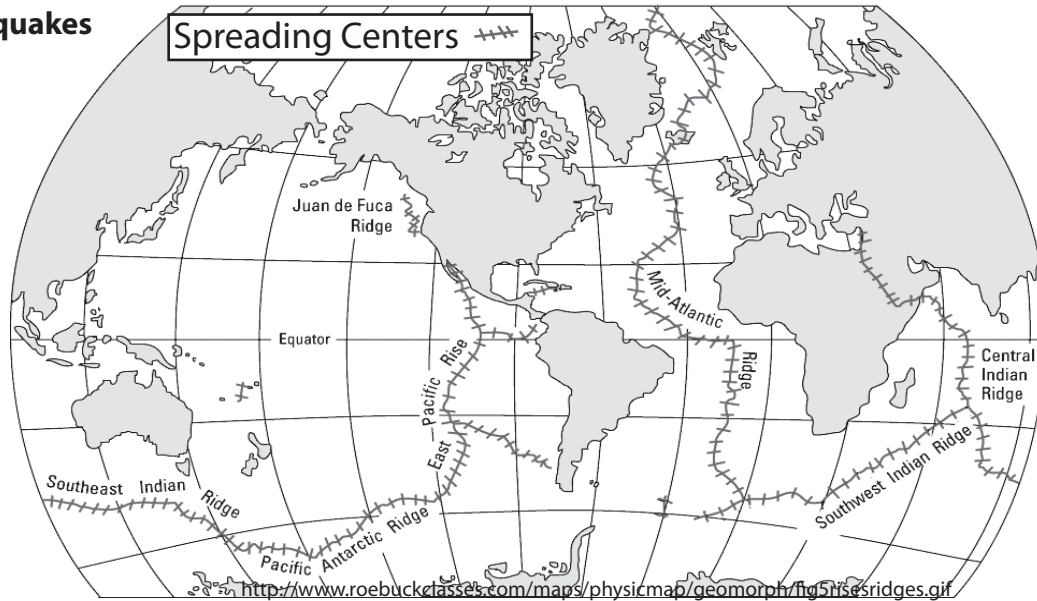
- 1) Draw arrows on each dot showing which way it will move as the seafloor spreads:
- 2) Below, circle the type of plate feature each pair of dots is associated with:



A, B	C, D	E, F
Ridge Segment	Ridge Segment	Ridge Segment
Transform Fault	Transform Fault	Transform Fault
Fracture Zone	Fracture Zone	Fracture Zone

Seafloor Spreading Worksheet Page 2

Part C: Earthquakes at Spreading Centers



The two maps above show the locations of all spreading centers (top) and locations of global earthquakes (bottom). Hint: It may help to color the spreading centers and earthquake with a color so they stand out.

- 1) What do you notice about the spreading center and earthquake locations?
- 2) Where do you notice other earthquakes that aren't on spreading centers?
- 3) What do you think causes these "non-spreading center" earthquakes?