

QUESTIONS:

1a. How many different cratons exist in this new world? How do you know? Color in each of these areas with a different color and provide a simple legend for your colors.

Six

1b. How many pieces of different cratons make up Nesmith? How might this have occurred?

Three

2a. Which columns preserve cratonic sequences?

A, B, D, E, H, I, J

2b. What do these sections say about changes in eustatic sea level over time?

Transgressed from Cambrian to Permian, regressed from Permian to Present

3a. How many different continental landmasses were there in the Cambrian?

Three

3b. Which cratons were sutured together? How do you know?

Kingsbury, James, Nesmith; you can tell based on the fossils

3c. When did they rift apart? How can you tell?

Ordovician; based on the lithology

4a. At one point in time, Nesmith and Hewitt were sutured together. When did they begin moving towards each other? How do you know?

Ordovician; volcanics in C, ash deposits in G

4b. When did they begin to collide?

Devonian

4c. When did they become completely sutured?

Carboniferous

4d. When did they rift apart?

Cretaceous

5a. What kind of feature do you think column L represents? Why?

An island arc; gabbro basement, basalt flows

5b. When did L form?

Permian

5c. When did it begin to collide with James?

Tertiary

6. What is the age of the mountain belt to the southeast of column D?

Jurassic-Cretaceous

7. When did the volcanics on Kingsbury start? What do you think caused this to happen?

Quaternary; the collision of the island arc with James caused the direction of subduction to switch.

8. How many different orogenic events have occurred during this world's history?

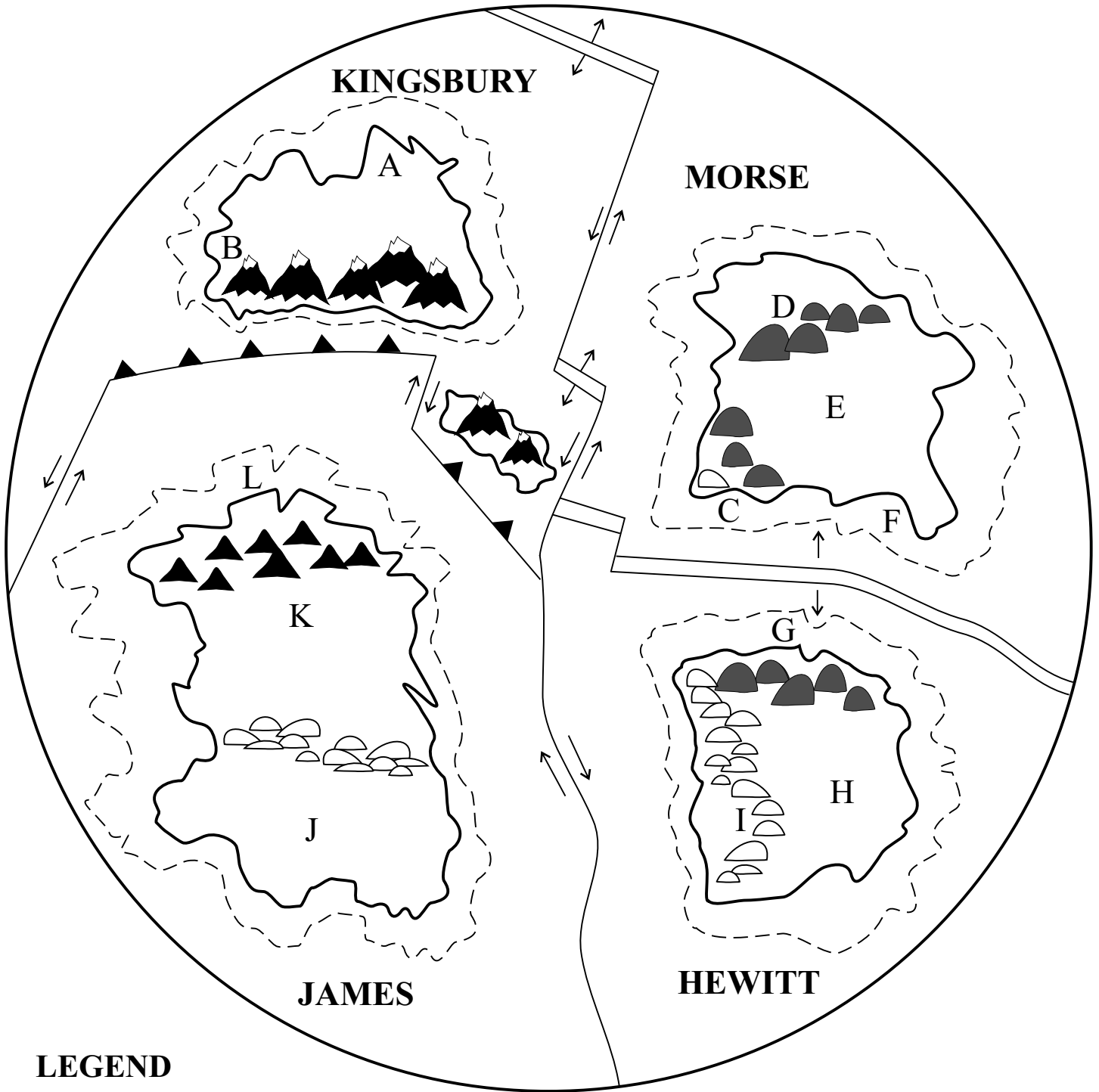
Eight

9. Draw a paleogeographic map of the mock world for the Cambrian, Carboniferous and the Cretaceous. Each map should show the relative location of the continents and the location of major mountain belts (if they existed at that time).

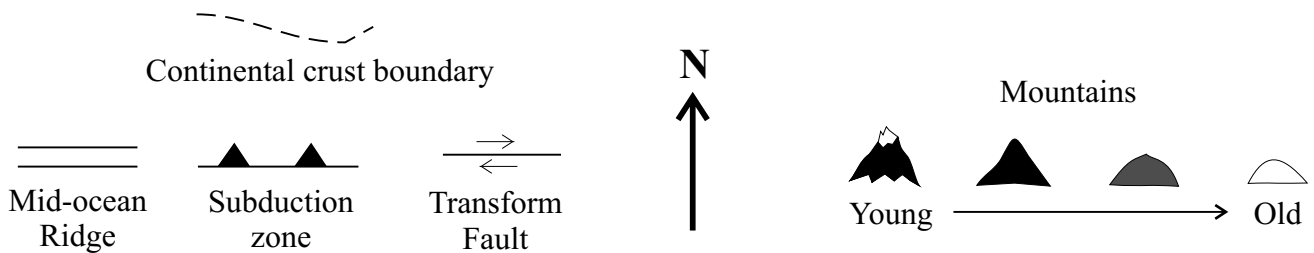
See teacher's key

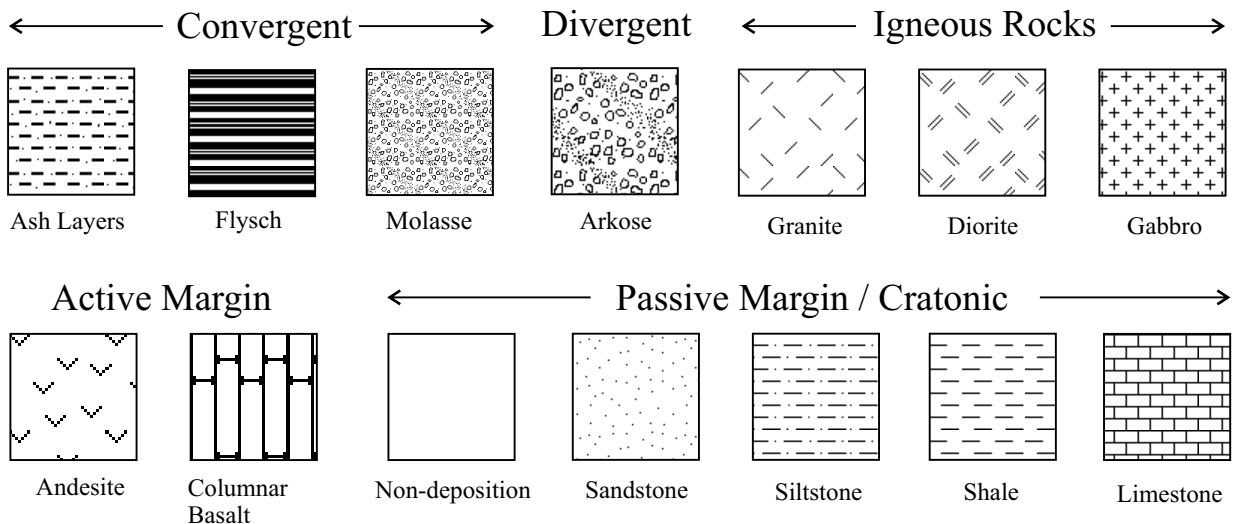
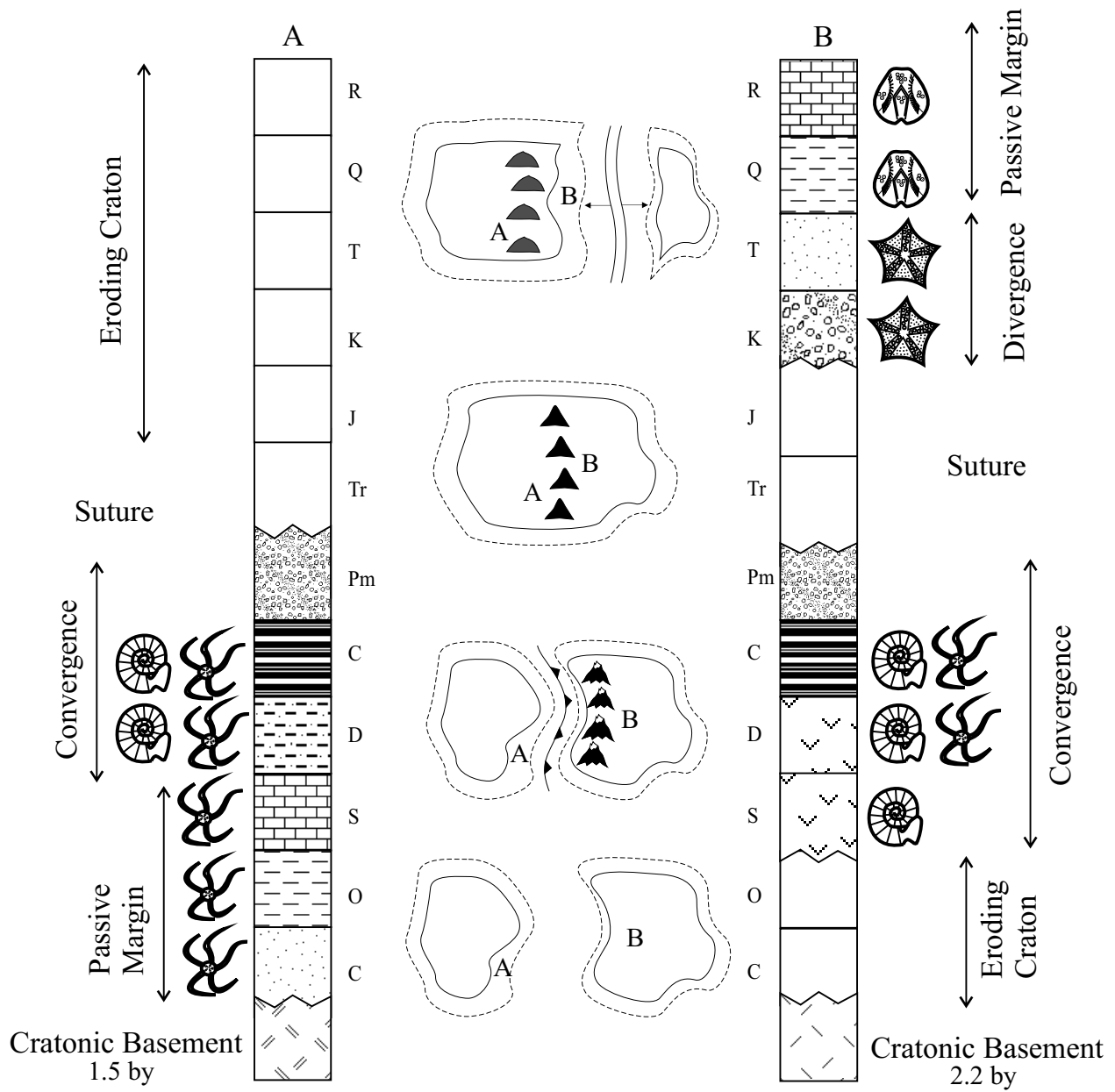
PLANET SALISBURY

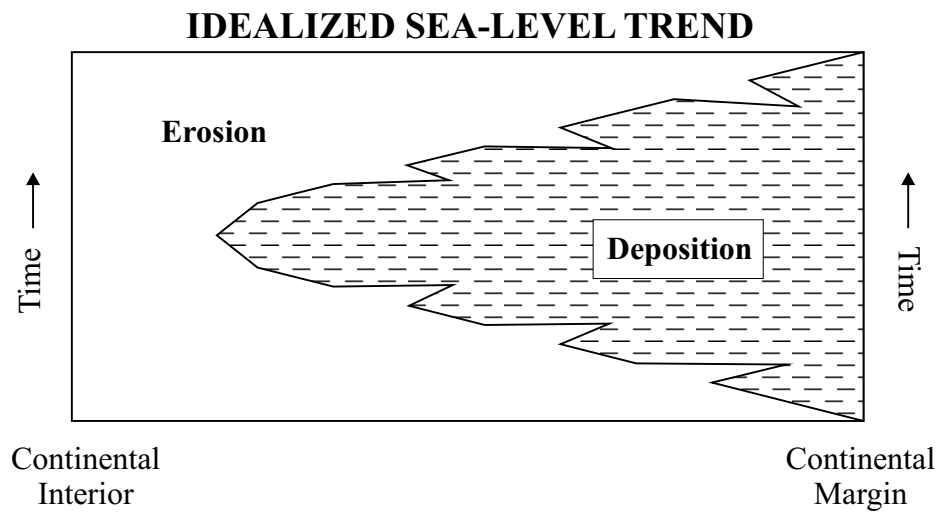
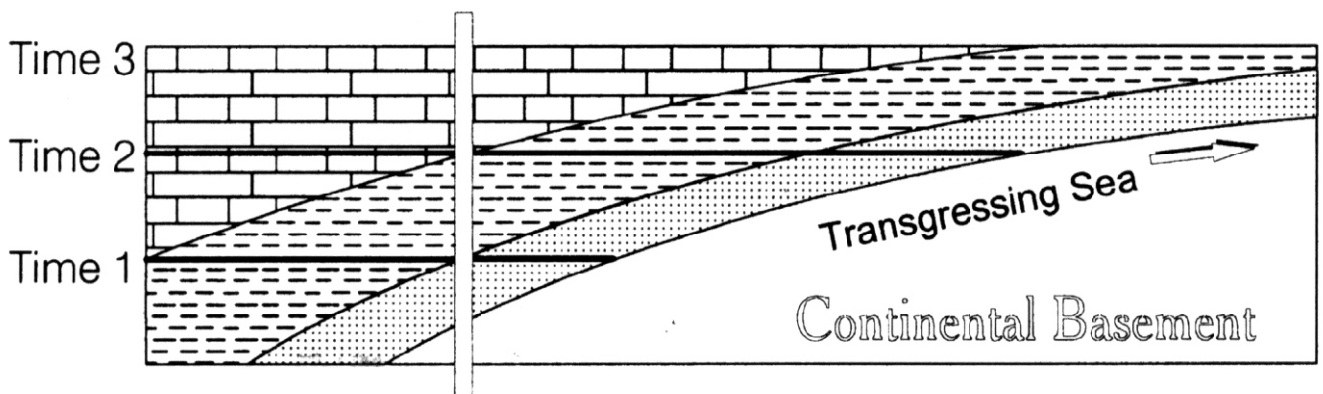
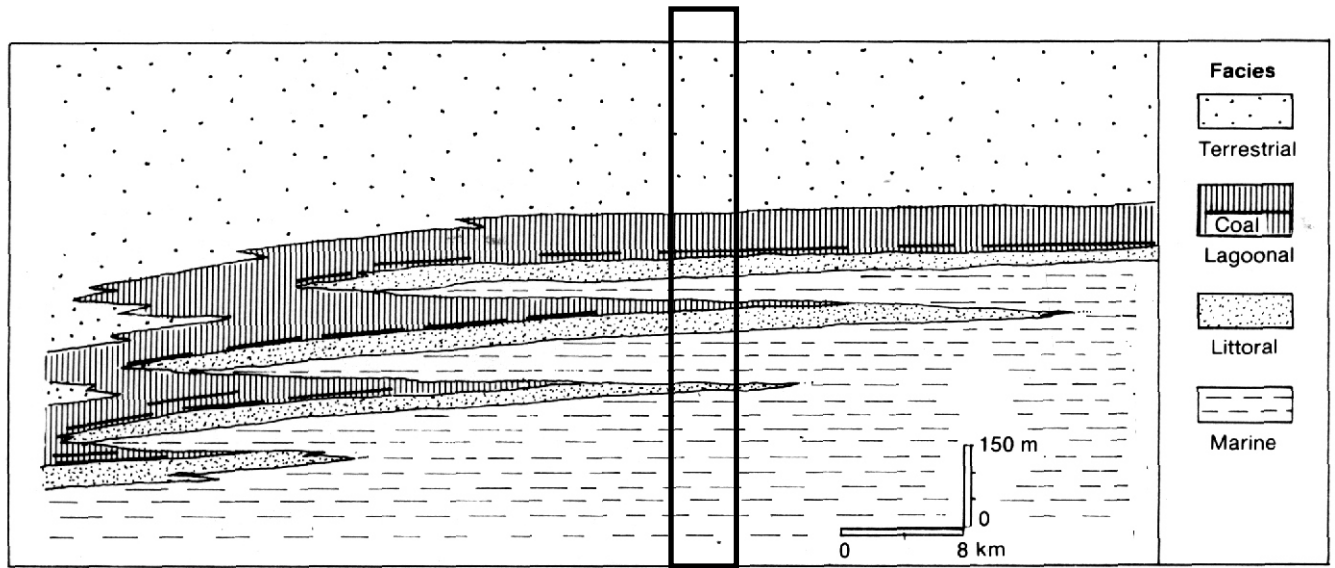
PRESENT DAY TECTONIC AND PHYSIOGRAPHIC REGIME

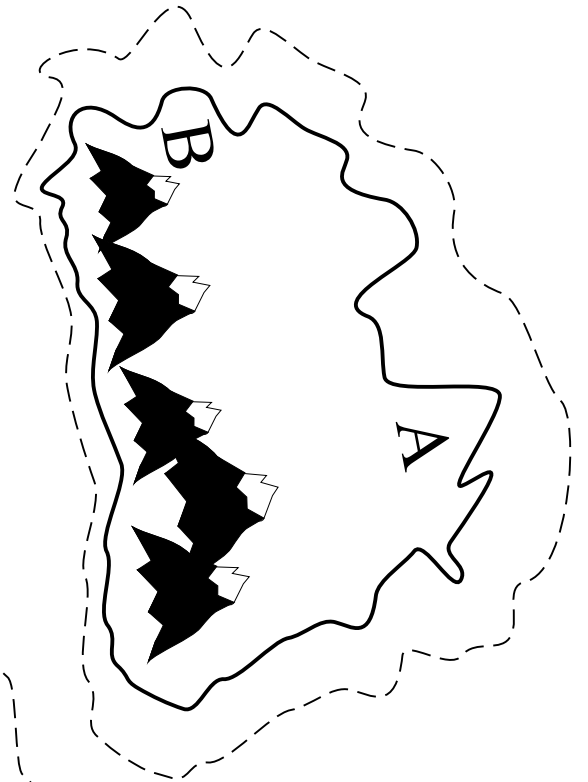
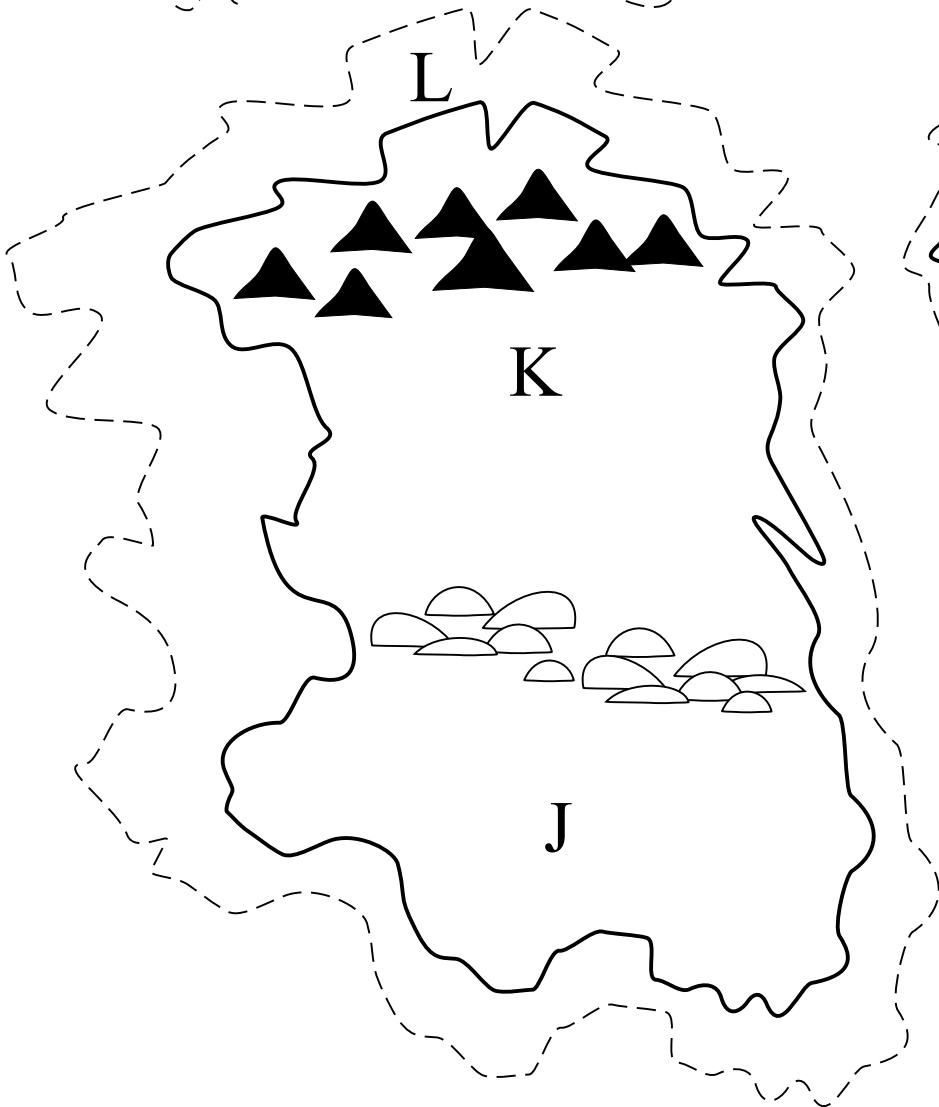
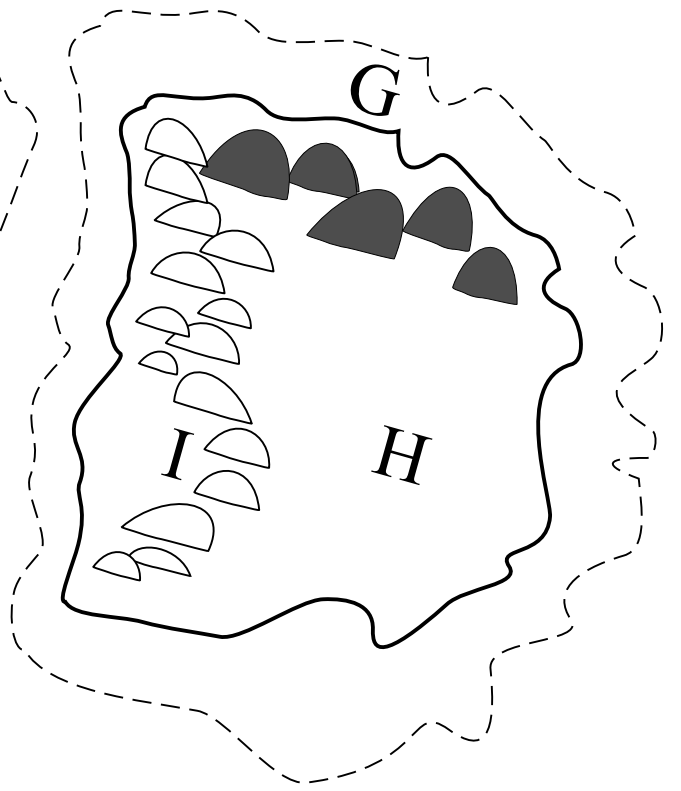
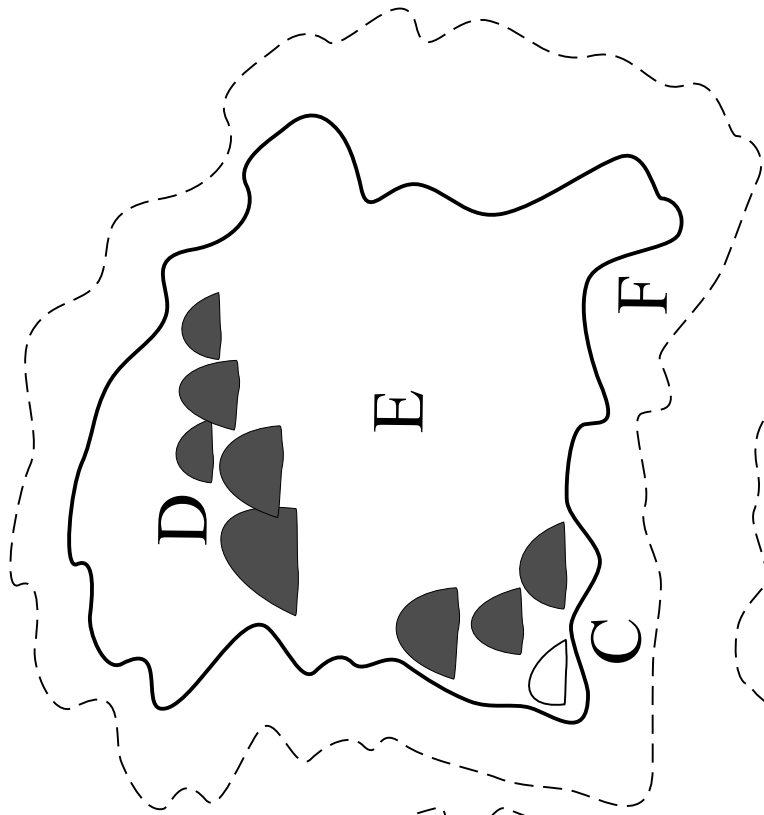


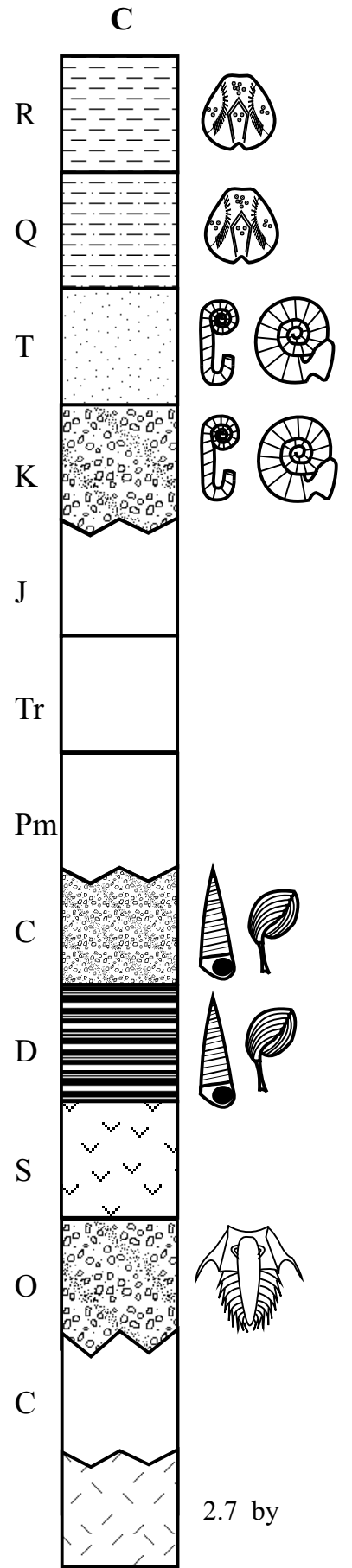
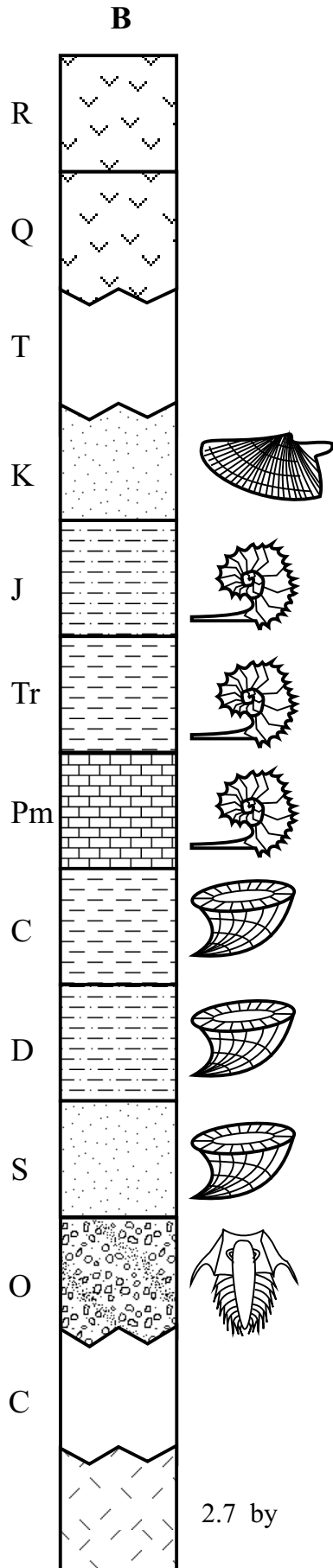
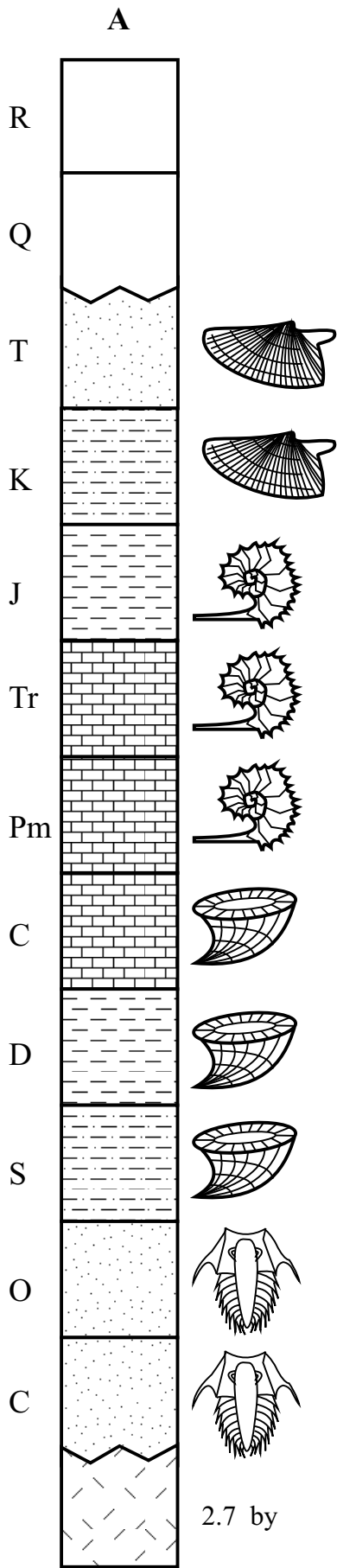
LEGEND

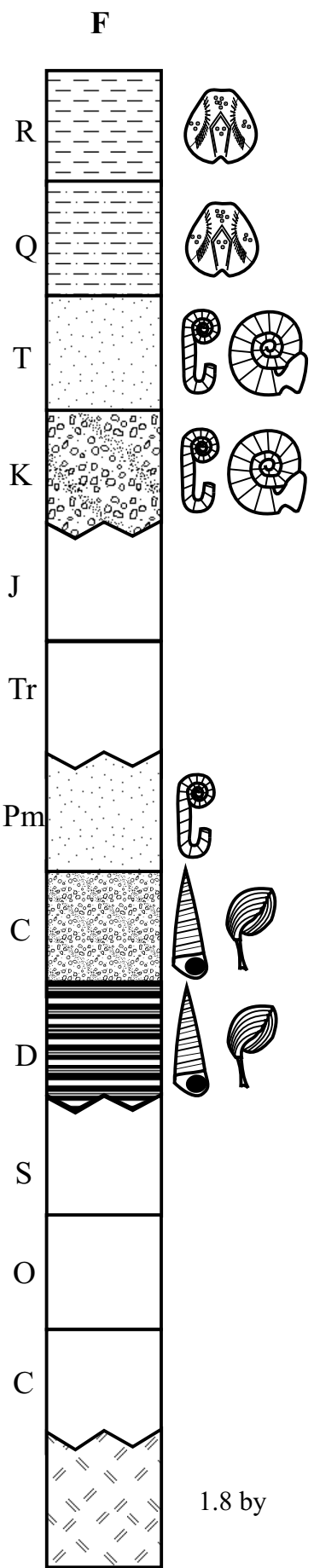
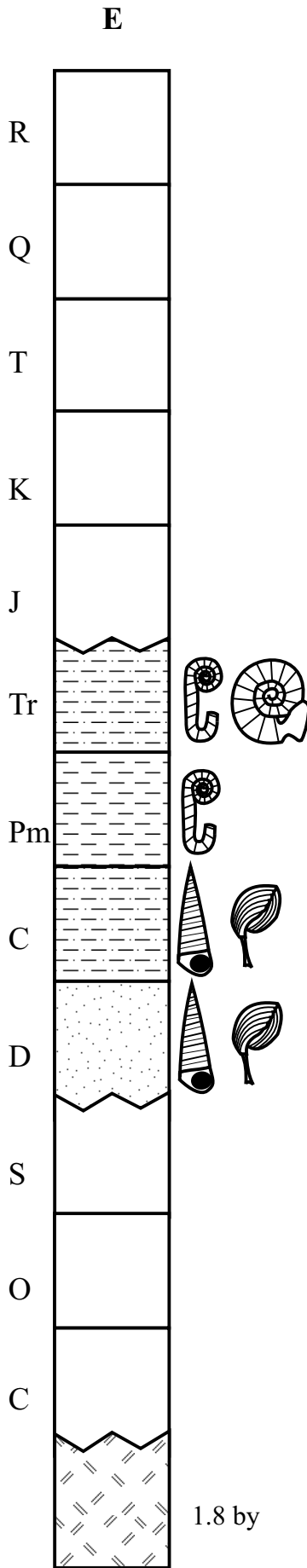
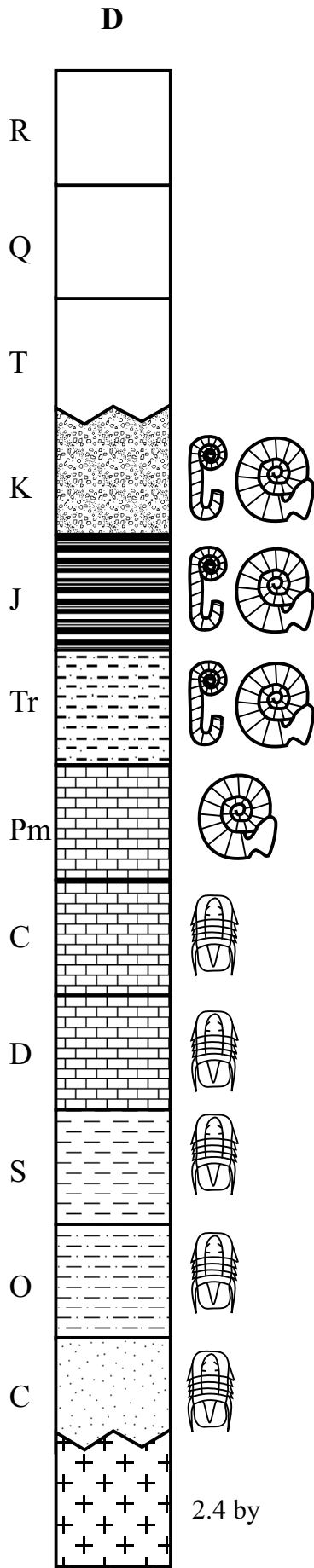




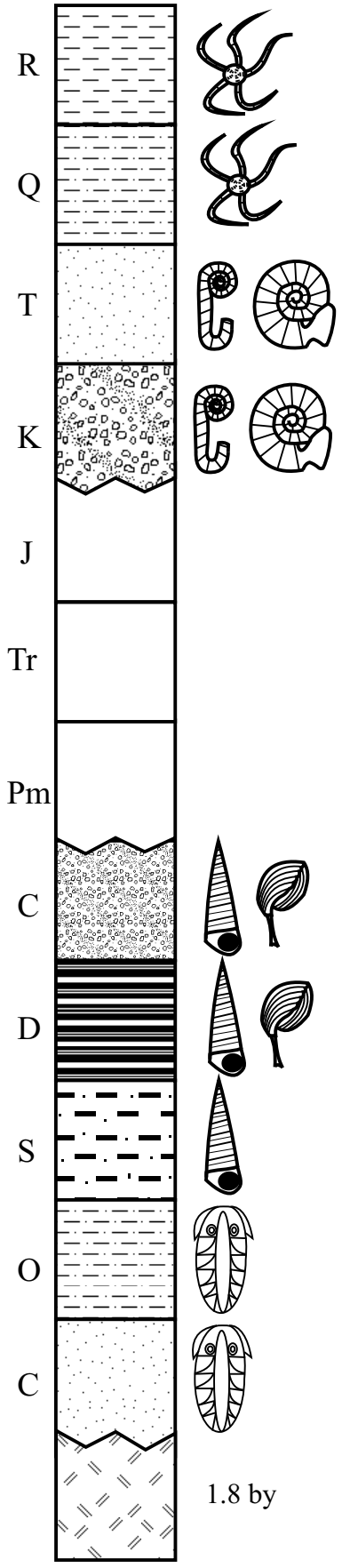




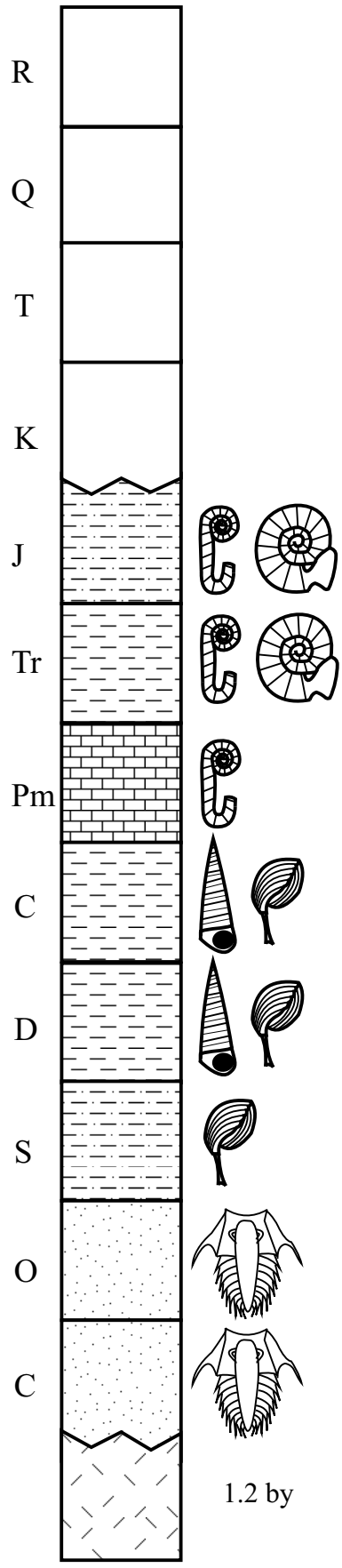




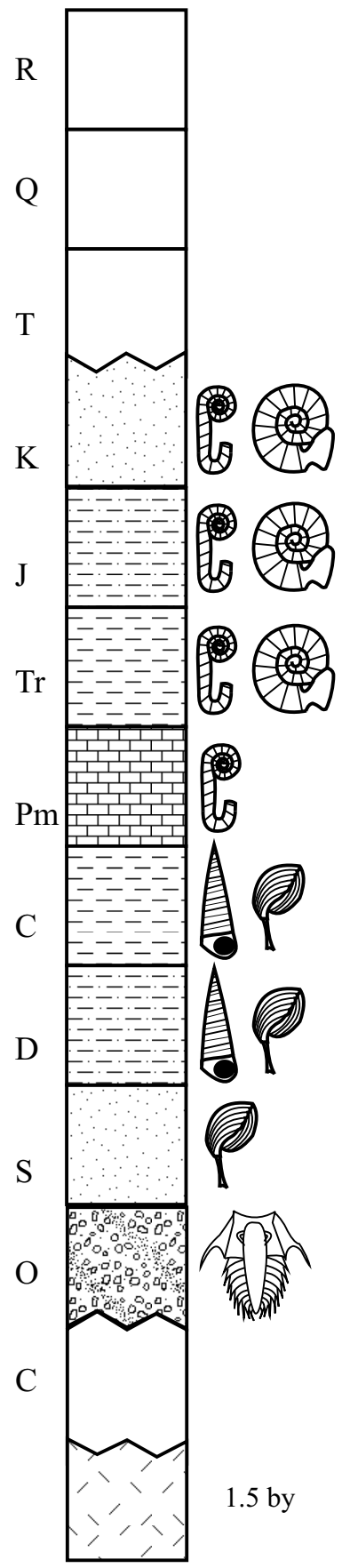
G

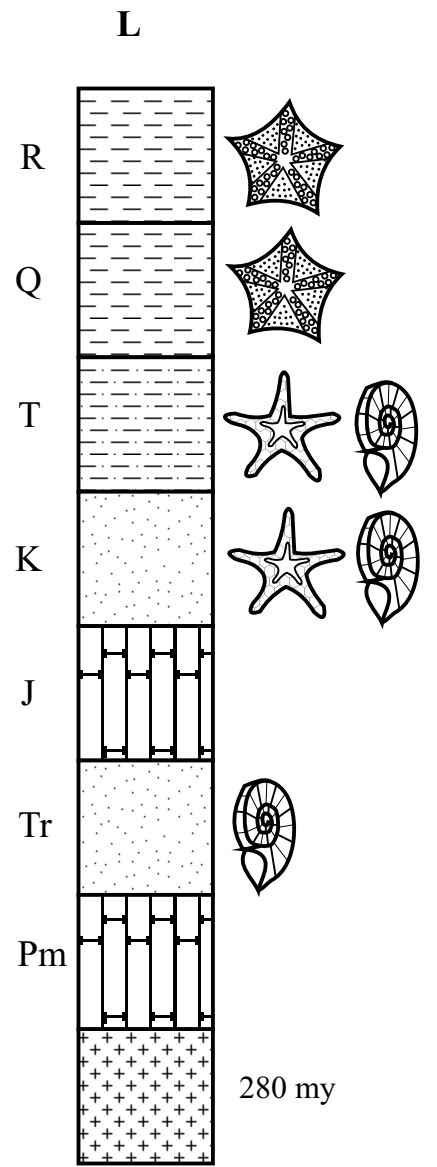
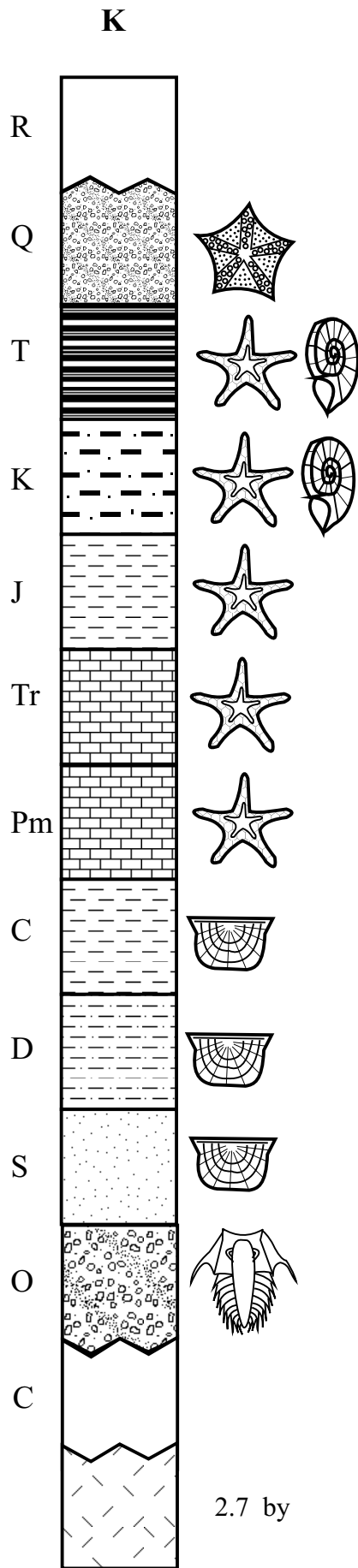
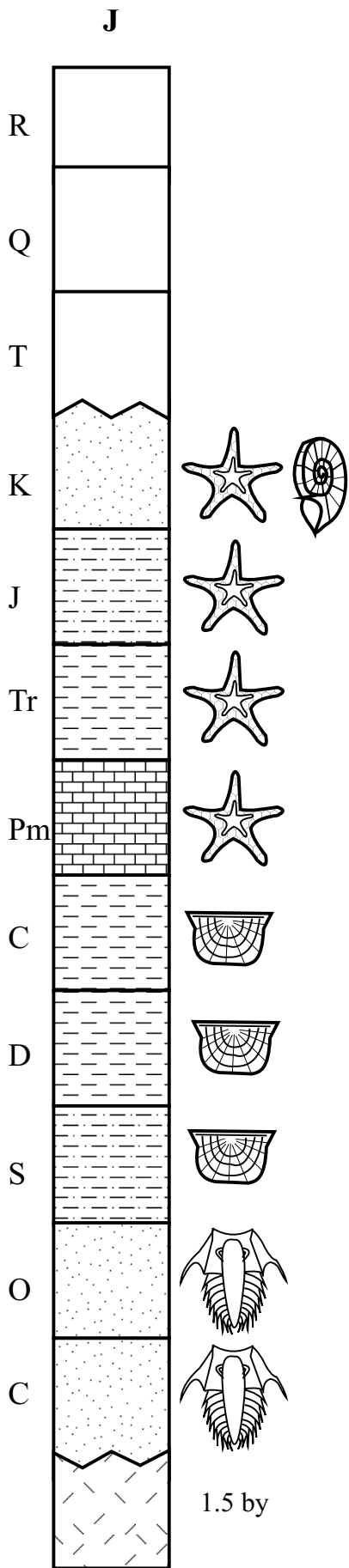


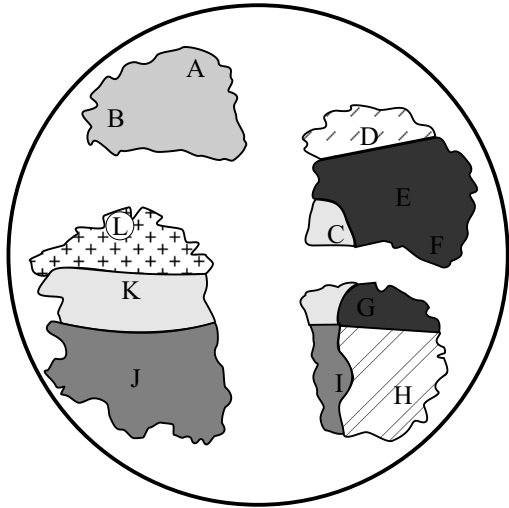
H



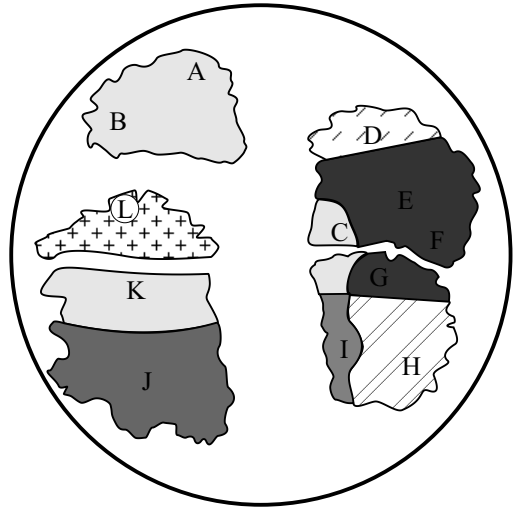
I



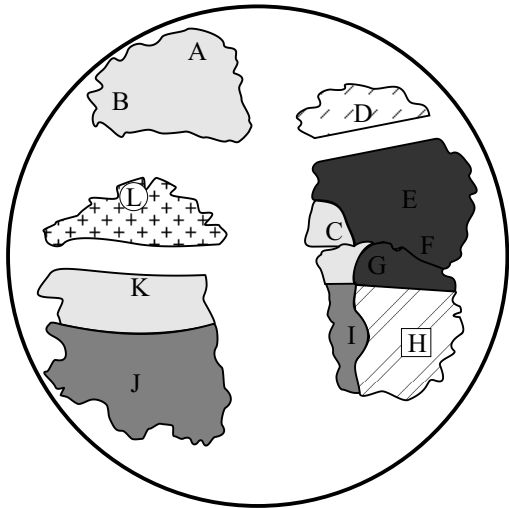




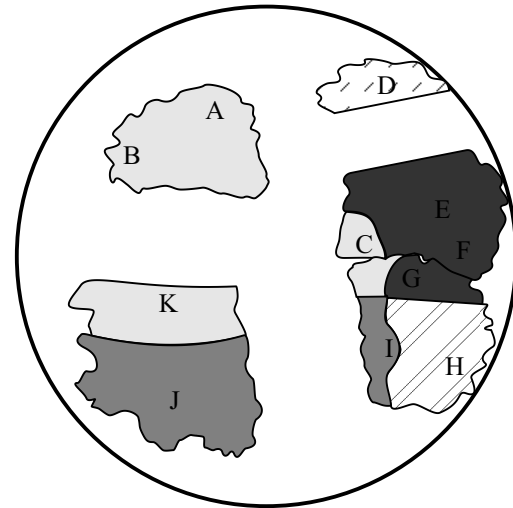
Present



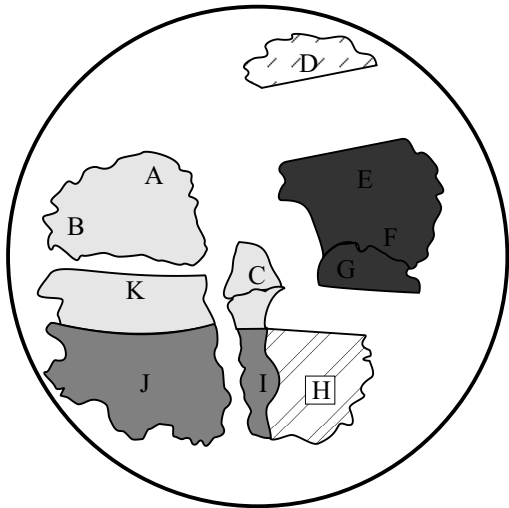
Cretaceous



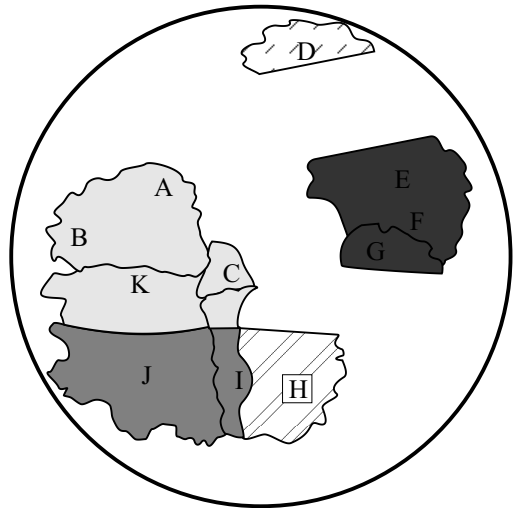
Permian



Carboniferous



Ordovician



Cambrian



2.7 by



2.4 by



1.8 by



1.5 by



1.2 by



280 my