Course: Earth, Astronomy and Space

Grade: 10 Academic Year: 1st Semester, 2020-2021

Course Code: SC31161 Instructor: Mr. Elmar Rubio

Name: ……Nickname:…….. Student number: …….
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Topic: Geological Evidences: Events of Evolution

Standard: Understanding the changing of Earth, geology disaster and effects to mankind and environment, including the education about rock's layer, natural resources, map and usefulness.

Learning outcome: Analyze the evidences that were related to the events in the past.

Vocabulary:

Self – Assessment Questions: Geological Evidences: Events of Evolution

1. What is the principle of superposition?

   ……..

   ……..

2. Explain the following layers on how they were formed:

Rock layer: ……..

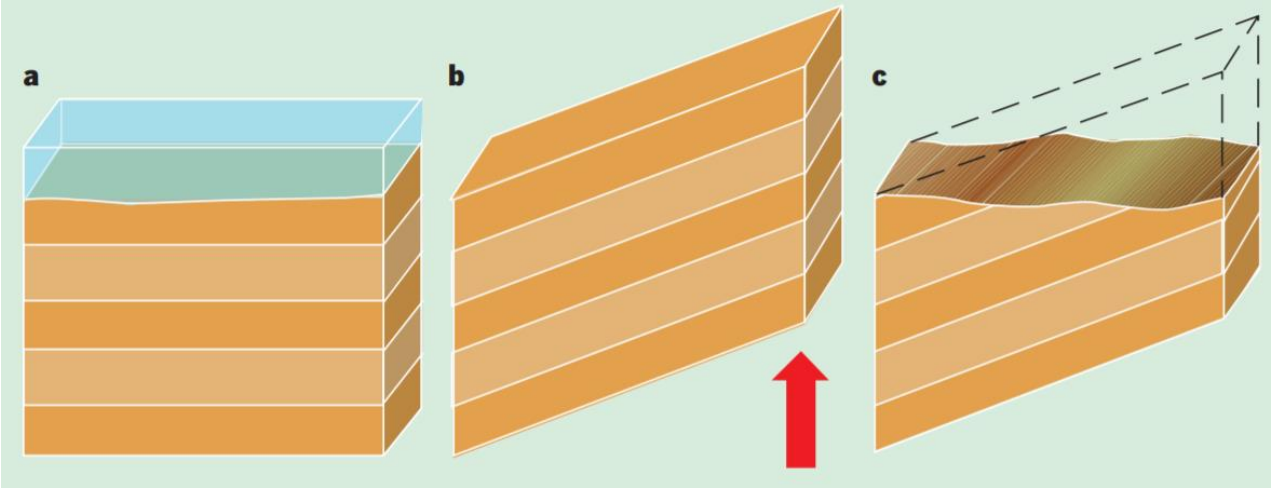
Second layer: ……..

Third layer: ……..

……

3. Make a diagram showing the sequence of formation of sedimentary rocks. Label each layer.

4. Explain the illustration below on how tilting, uplift, and erosion affect superposition.



a: ……

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b: ……

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c: ……

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5. Make the illustrations as the effects of folding, uplift, and erosion. Explain the flow of the diagrams.

6. Identify the angular unconformities and tilted rock layers.

a. Name of the diagram: ……

Explain:
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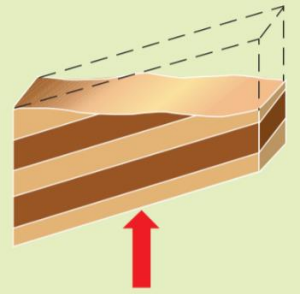

b. Name of the diagram: ……

Explain:
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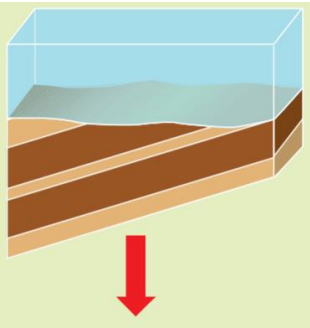

c. Name of the diagram: ……

Explain:
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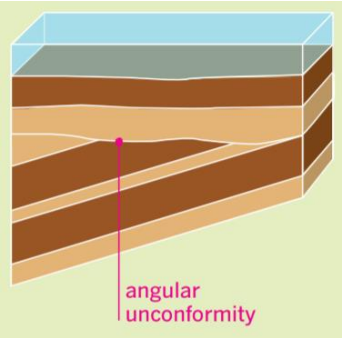
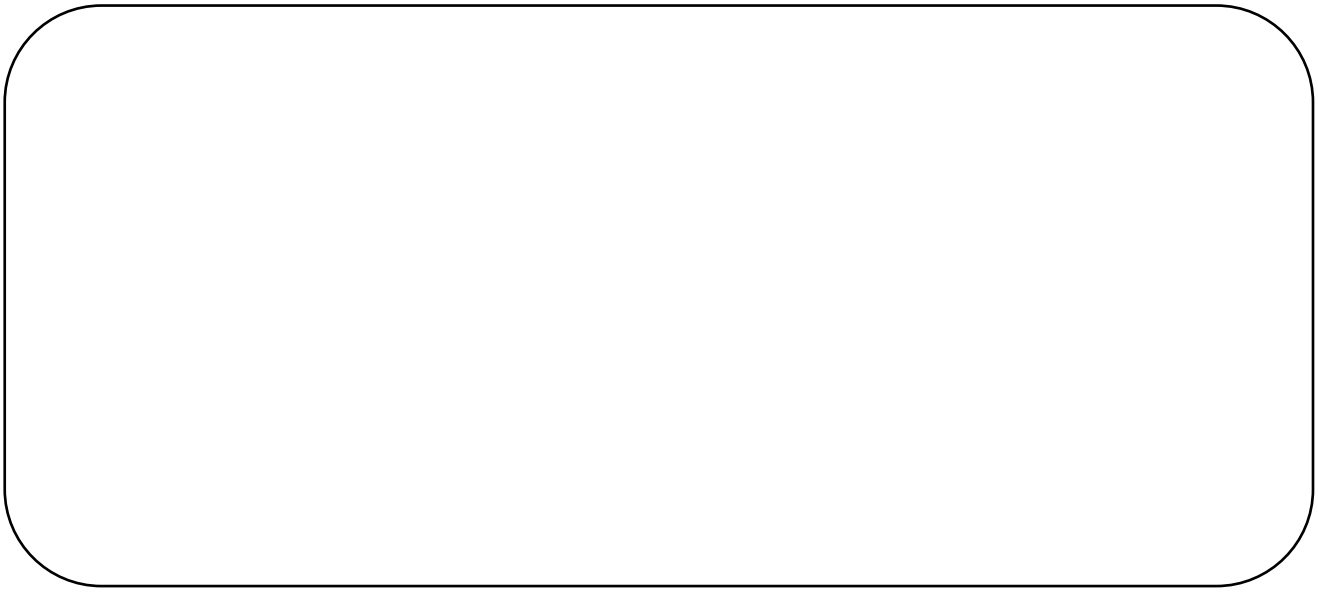


7. Make the diagrams showing the angular unconformities and folded rock layers



a. Name of the diagram: ……

Explain:
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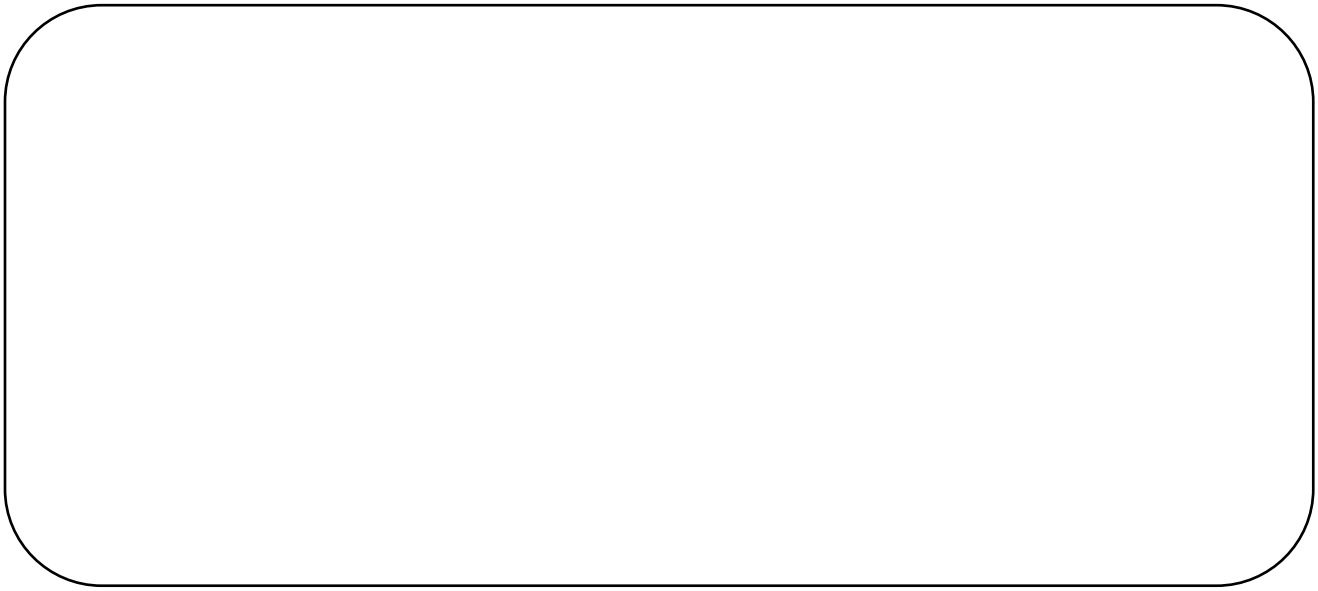
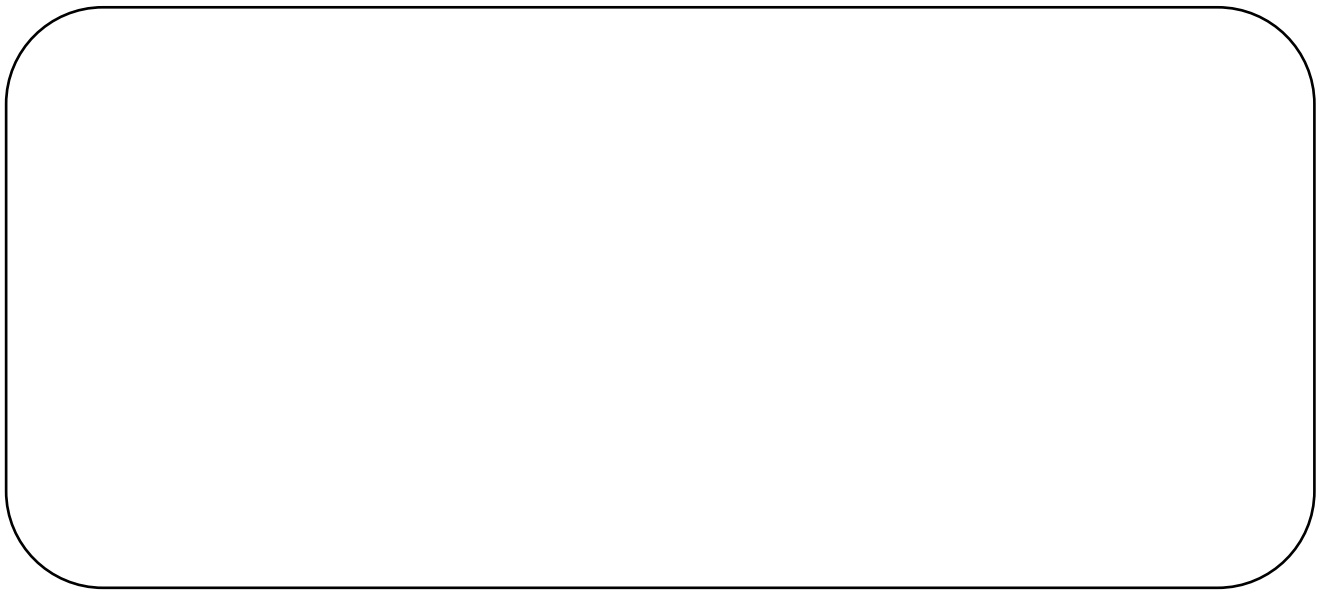


b. Name of the diagram: ……

Explain:



c. Name of the diagram: ……

Explain:
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8. What is disconformity? Explain the formation of the surface.
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9. …… - is a horizontal sheet of igneous rock injected between layers of rock.

10. …… - is a wall of igneous rock injected through a crack in rocks.

11. What is “nonconformity” in the Earth’s crust?

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……

12. Complete the table below based on the complex rock sequence.

Order		Rocks appeared	Type of Rocks
A			
B			
C			
D			
E			
F			
G			
H			

13. …… It is called a known sequence of past changes in polarization recorded in rocks enables scientists to date rocks and fossils formed tens of millions of years ago.

14. Explain the “Pole Reversals”.

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15. Illustrate and explain the alignment of magnetized minerals.

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Part 2. TRUE or False.

…… 1. Most subatomic particles are the remains of the hard parts of ancient organisms that were preserved soon after death by sediments that later turned to rock.

…… 2. Dissolved minerals permeate dead organisms or completely replace them.

…… 3. Rarely, soft tissues are preserved—as carbonaceous films, or in fine-grained sediments, peat, or permafrost.

…… 4. Buried organisms that dissolve away completely may leave fossils in the form of new organism.

…… 5. Rock correlation left by living organisms also include footprints, burrows, and coprolites (fossil droppings).

…… 6. The same sequence of layered rocks found in different places enables geologists to match their relative ages.

…… 7. The correlating rocks are relative dating works best for sedimentary rocks in places where Earth movements have not disturbed or interrupted the sequence in which the rocks have been laid down.

…… 9. Complications can arise where a whole rock layer has been worn away, layers have been tilted or inverted, or granite or other igneous rocks have been injected between preexisting layers.

…… 10. Most index fossils used in the relative dating of sedimentary rocks are those of marine invertebrates, because most sedimentary rocks were laid down beneath the sea.