**MODULE 2**

**Pre-test.** Answer the questions below and make your answer brief and concise.

1. What event began to occur about 190 million years ago?
2. If mountain ranges can form where plates are colliding, what would your hypothesis might be when plates are separating? Apply your hypothesis to identify locations on a world map where plates might be separating (both oceanic and continental lithospheric plate divergence zones can be identified on the map and in the flip books). The flipbooks will help you identify previous plate separations.
3. What are the two forces involved in water cycle?
4. How important the biogeochemical cycle for you as a student upon doing the activity?
5. What is the relationship between the direction of motion of the balloon and the wind currents on Earth?

**SELF- EVALUATION:** Fill-in the table below to self-assess the lesson. Make your answer brief but concise

1. In which frame did you locate the final breakup of Pangaea? Why did you choose that frame and not another?
2. Sometimes when two plates collide, the landmasses (continents) within the plates are pushed together and a mountain range can form. Using a world map, identify two locations where mountain ranges exist and where you hypothesis plate collisions between continents or parts of continents have occurred. Use your flipbooks to confirm your hypothesis. (Note that not all present-day mountain ranges were formed by continental collision events or by plate convergence that occurred during the last 190 million years.)You can refer to the this link <https://geology.com/nsta/>
3. During your coloring of the frames, in which frame did you locate the first appearance of the following landmasses:

|  |  |  |
| --- | --- | --- |
| **Continent** | **Frame** | **Time(Mya)** |
| North America |  |  |
| Australia |  |  |
| India |  |  |
| Europe |  |  |
| Antarctica |  |  |

1. How the container of the terrarium becomes important in giving illustration of a water cycle?
2. If you are given a chance to take out one of the least important in biogeochemical cycle what is it and why?
3. What happened to the line as you rotated the balloon?
4. What happens to the line as you got closer to the center of the balloon?
5. How does this activity demonstrate the Coriolis effect?
6. Who had coined the term “coriolis effect”? You may search by clicking this link on the internet at <https://www.carolina.com/teacher-resources/Interactive/modeling-thecoriolis-effect/tr10643.tr>

**Post-test** . Answer the questions below and make your answer brief and concise.

1. What event began to occur about 190 million years ago?
2. During your coloring of the frames, in which frame did you locate the first appearance of the following landmasses:

|  |  |  |
| --- | --- | --- |
| **Continent** | **Frame** | **Time(Mya)** |
| North America |  |  |
| Australia |  |  |
| India |  |  |
| Europe |  |  |
| Antarctica |  |  |

1. What are the two forces involved in water cycle?
2. How important the biogeochemical cycle for you as a student upon doing the activity?
3. What is the relationship between the direction of motion of the balloon and the wind currents on Earth?
4. How coriolis’ Effect explains the direction of the different monsoons, example the northeast and the southeast monsoons?