Waves and Tides worksheet

Chapter 16.2 Ocean waves and tides

This is the definition of a wave:

The two basic parts of a wave:

 The crest is :

 The trough is:

Wave height=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The wave period is:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and the wave length is:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Describe how wind causes waves. What happens as the wind blows harder?

Following the diagram on page 456, draw and label the parts of a wave below

Describe the water movement in a wave:

Three factors determine the size of a wave, they are:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List the steps that are involved in causing a wave to break

1. When a wave approaches the shore, the water becomes \_\_\_\_\_\_\_\_\_\_\_.

2. The wave begins to “feel bottom” at a water depth equal to \_\_\_\_\_\_\_\_\_.

3. At the base of the wave, this \_\_\_\_\_\_\_\_\_\_\_\_ its advance.

4. The wave steadily grows higher, until reaching a critical point when the wave is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. The wave front then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or breaks, causing water to advance up the shore.

6. The turbulent water created by breaking waves is called \_\_\_\_\_\_\_\_\_\_\_.

What is the tidal range?

There are three main tidal patterns:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The force that produces tides is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

What is the difference between spring tides and neap tides?