**CURRENTS**

1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a large stream of moving water that flows through oceans.

UNLIKE waves, currents carry water great distances (waves only transport energy).

**2 TYPES OF CURRENTS**

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ currents caused by global **winds** (deflected by *and Earth spinning/Coriolis*)

3. \_\_\_\_\_\_\_\_\_\_ currents (caused by density differences)

***SURFACE CURRENTS*** —2 to know (label below on map)

4.The **\_\_\_\_\_\_\_\_\_Stream**

* located in the \_\_\_\_\_\_\_\_\_\_\_\_ Ocean
* caused by strong winds from the \_\_\_\_\_\_\_\_\_\_ (hint: it’s a WARM current)
* largest surface current in the world

5. **The\_\_\_\_\_\_\_\_\_\_\_\_ Current**

* COLD current in \_\_\_\_\_\_\_\_\_\_\_\_ Ocean



***SURFACE CURRENTS AND CLIMATE***

6.\_\_\_\_\_\_\_\_\_\_\_\_ is the average temperature and precipitation of an area over a long period of time.

\*Give an example of an ocean current affecting the climate of an area?\*

**DEEP CURRENTS**

7. Deep currents are caused by \_\_\_\_\_\_\_\_\_ differences (remember that surface currents are caused by global winds)

**Density= mass**

 **volume**

**y= mass**

 **volume**

The density of water depends on its

8 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_ water sinks, and warm water rises)

9 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (saltier water \_\_\_\_\_\_\_\_\_\_)

**WAVES**

Waves are mainly caused by 10.\_\_\_\_\_\_\_\_\_ (sometimes underwater earthquakes or landslides)

Wave size depends on:

11—wind \_\_\_\_\_\_\_\_\_\_

12—how long the wind blows

13—the \_\_\_\_\_\_\_\_\_ over which the wind blows

**14. PARTS OF A WAVE**

**Label the parts using the diagram at your station.**

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15. Wave energy moves \_\_\_\_\_\_\_\_\_, but the water molecules just move in 16. a small \_\_\_\_\_\_\_\_\_\_\_.

17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ --giant wave caused by powerful underwater 18. \_\_\_\_\_\_\_\_\_\_\_\_

Where do most Tsunamis occur??

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TIDES**

19. Tides are the daily rise and fall of Earth’s waters on its coastlines because of the gravitational pull of 20. the \_\_\_\_\_\_\_\_\_ (the sun’s gravity only plays a small part in tides because it’s so far away).

When the water reaches its highest point (twice a day), it is called \_\_\_\_\_\_\_\_ tide (points B & D on diagram below).



21. When the water is lowest on the beach (twice a day), it is called \_\_\_\_\_\_\_\_\_ tide (points A & C on diagram above).

On the back, make a double bubble to compare and contrast the two types of extreme tides:

1. Spring tide (figures 1 & 2)
2. Neap tide (figures 3 & 4)



In the space below, create a double bubble map comparing and contrasting the spring tide and the neap tide.



Australia

Africa

Greenland

Antarctica

South America

North America

Europe

Asia