NOTES: TIDES CHAPTER 21-3 NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hr\_\_

1. TIDE DEFINITION- the periodic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the water level in oceans
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tide- when water level is lowest
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tide- when water level is highest
2. Causes of tides
	1. Moon’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pull- it is more than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as powerful as the sun’s gravitational pull because the moon is much \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the earth
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gravitational pull- less powerful – even though the sun is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, it is so \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ away it has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ influence than the moon
3. Why is there a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the side \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ facing the moon?



* 1. At point a, there is an obvious \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bulge because of the moon’s gravity.
	2. At point b, the moon is pulling on Earth as well, but \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as hard as at point A, because it’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ away
	3. At point c, the moon has the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ influence. This water is not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on as much, so it gets “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”
1. Types of tides
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tide – the sun, moon, and earth are all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ up and thus the sun’s gravity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the pull of the moon
		1. The high tide is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		2. The low tide is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		3. Happens during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ moon and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ moon



* 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TIDE – the sun and moon are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees apart relative to the earth, causing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ extreme tidal changes
		1. High tide is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		2. Low tides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		3. Happens during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ quarter and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ quarter



1. Tidal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tide- tide current flows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the coast
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tide- tide current flows back out to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - time between flood and ebb tide where there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tidal currents
	4. Tidal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – surge of water that rushes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a river
2. Tidal patterns – tides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the same everywhere because bodies of water are different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – 1 high tide and 1 low tide each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – 2 high tides and 2 low tides each day (both about the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ height each time)
	3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - 2 high tides and 2 low tides each day (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ heights each time)