

Constantly Changing Tides

High or Low Tide?

You are alone on the edge of Great Bay at the end of a wonderful afternoon. You need to sail home before the sun sets, but you almost forgot about the tides! At low tide, half of Great Bay is mud. Luckily, you have a tide chart.

The tide chart or table is a calendar that predicts when high and low tide will occur. It also tells how many feet the tide will be above or below “mean low water,” an imaginary line that is exactly at sea level. The average tidal range for Great Bay (the difference between high and low tide) is about 6.8 feet.

Rhythm of the Moon

Tides follow the rhythm of the moon. High tide and low tide occur 52 minutes (on average) later each day than the day before. This is because of the moon, which pulls the tides, passes its highest point overhead about 52 minutes later each day.

Because Great Bay is so far inland from the Atlantic Ocean, high and low tide are delayed about two hours as the water travels to and from the estuary. The tide chart below has already been adjusted for this condition.

See if you can answer these questions using the tide chart.

1. When does high tide occur on Saturday afternoon? _____
2. What is the difference in height (depth of water) between high tide and low tide on Saturday afternoon? _____
3. If your boat needs 3 feet of water beneath it in order to float, can you sail it at low tide on either day? _____
4. When will high tide occur on Sunday morning? _____
5. When will low tide occur on Sunday evening? _____

Sample Tide Chart for Sandy Point

	am		pm	
Sat 21	High tide in the am	→ 12:02	High	12:29 ← High tide in the pm
		9.1	Height	8.7
	Low tide in the am	→ 6:20	Lo	6:28 ← Low tide in the pm
		0.8	Height	1.0
	am		pm	
Sun 22		12:42	High	1:05
		9.3	Height	9.1
		6:53	Lo	7:07
		0.6	Height	0.6

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