

Turtles and Tides

**Go to the URL** <https://conserveturtles.org/information-about-sea-turtles-an-introduction/>

**(Behavior of Sea Turtles)** Answer the following questions:

1. How is genetic diversity of sea turtles increased in terms of mating behavior?

2. What is a “false crawl”?

3. What is the relationship between incubation temperature and offspring?

4. What is the average size for a clutch of sea turtle eggs?

5. Sea turtles are thought to use what two factors to aid in their navigation?

6. What did the tagging program show in terms of migratory patterns for green sea turtles nesting in Tortuguero, Costa Rica?

7. What is satellite telemetry?

**Click on the** <https://conserveturtles.org/sea-turtle-tracking-active-sea-turtles/>

 Click on any one of the recent satellite tracking programs, and read the information. Click on a specific turtle and list the following:

8. Turtle’s satellite tracking name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Scientific and common name\_\_\_\_\_\_\_\_\_\_\_\_\_

10. The approximate location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. The approximate latitude and longitude \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. Make a sketch of the sea turtle’s current location and approximate migratory path (the location in the box…if doing this on the computer, you may insert the actual map provided below)

**Species Classification**

Log onto: <https://conserveturtles.org/information-about-sea-turtles-species-identification-key/>

13. Fill in the following to classify sea turtles:

KINGDOM: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PHYLUM: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CLASS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ORDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. Click on the blue common name link of **one** of seven turtle species listed and fill in the information for:

**Common Name:**

**Scientific Name:**

**Description:**

**Size/Weight:**

**Diet:**

**Habitat:**

**Nesting: Range:**

**U.S and International conservation status:**

**Primary Threats to Survival:**

**Population Estimate**:

Tides

**Begin your information search by accessing** [***http://www.nos.noaa.gov/education/tides/welcome.html***](http://www.nos.noaa.gov/education/tides/welcome.html)

**What are Tides?**

1. What is a basic definition of a tide? Where do tidal waves originate, and where do they end?

2. What is a high tide? What is a low tide?

3. What is tidal range? What is a tidal current?

4. Compare and contrast a flood and ebb current. When are they strong? When are they weak?

**Frequency of Tides - The Lunar Day**

5. Compare and contrast a solar and lunar day. How long is a lunar day?

6. Why do most coastal areas experience two high tides and two low tides?

7. How long does it take for high tide to occur? How long is the time between low and high tide?

**Tidal Variations - The Influence of Position and Distance**

8. What is the magnitude of solar tides and how are they expressed?

9. What causes spring tides? What causes neap tides? How many spring and neap tides occur in a lunar month?

10. How are tide-generating forces affected when the moon is closest to the Earth (or perigee)? when the moon is farthest away from the Earth (or apogee)? How does this affect the tides that are produced?

**Types and Causes of Tidal Cycles: Diurnal, Semidiurnal, Mixed Semidiurnal; Continental Interference**

11. If the Earth were perfect, how many high and low tides would all points on the earth experience in one day? What causes tidal patterns to change? Why is the water unable to move freely?

12. Describe a semidiurnal tide. How do the tidal heights compare in a lunar day? Where might you experience a semidiurnal tide in the continental United States?

13. Describe a mixed semidiurnal tide. How do the tidal heights compare? Where might you experience a mixed semidiurnal tide in the continental United States?

14. Describe a diurnal tide. Where might you experience a diurnal tide?