**ESP Physics Unit 2**

**Physics is everywhere!**

Motto:

*“You can´t stop the wave but you can ……………………………. .“* (John Kabat-Zinn)

TED-ed: The Physics of surfing by Nick Pizzo

<https://www.youtube.com/watch?v=5nCcE-jABSo>

**Watch the video and answer the questions:**

1. What allows you to stay afloat on your board?
2. What do all waves represent in physics?
3. How are waves formed?
4. What is the effect of gravity on the waves?
5. What happens to the waves near the shore?
6. How do you “catch a wave”?
7. What is the effect of increased momentum on a surfer on a wave?
8. What does it mean to “get barrelled”?

**Guess the word defined below:**

1. the [force](https://dictionary.cambridge.org/dictionary/english/force) that [keeps](https://dictionary.cambridge.org/dictionary/english/keeps) an [object](https://dictionary.cambridge.org/dictionary/english/object) [moving](https://dictionary.cambridge.org/dictionary/english/moving) or [keeps](https://dictionary.cambridge.org/dictionary/english/keeps) an [event](https://dictionary.cambridge.org/dictionary/english/event) [developing](https://dictionary.cambridge.org/dictionary/english/developing) after it has [started](https://dictionary.cambridge.org/dictionary/english/start):

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

1. the tendency of a body to float or to rise when submerged in a fluid; the power of a fluid to exert an upward force on a body placed in it: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. to move faster; to cause to move faster: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Complete the gaps with one of the words above:**

1. The swimmer is supported by the water's \_\_\_\_\_\_\_\_\_\_\_\_\_.
2. He [stepped](https://dictionary.cambridge.org/dictionary/english/stepped) on the [gas](https://dictionary.cambridge.org/dictionary/english/gas) and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [rapidly](https://dictionary.cambridge.org/dictionary/english/rapid) to [pass](https://dictionary.cambridge.org/dictionary/english/pass) a [car](https://dictionary.cambridge.org/dictionary/english/car).
3. The spacecraft will fly around the earth to gain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for its trip to Jupiter.