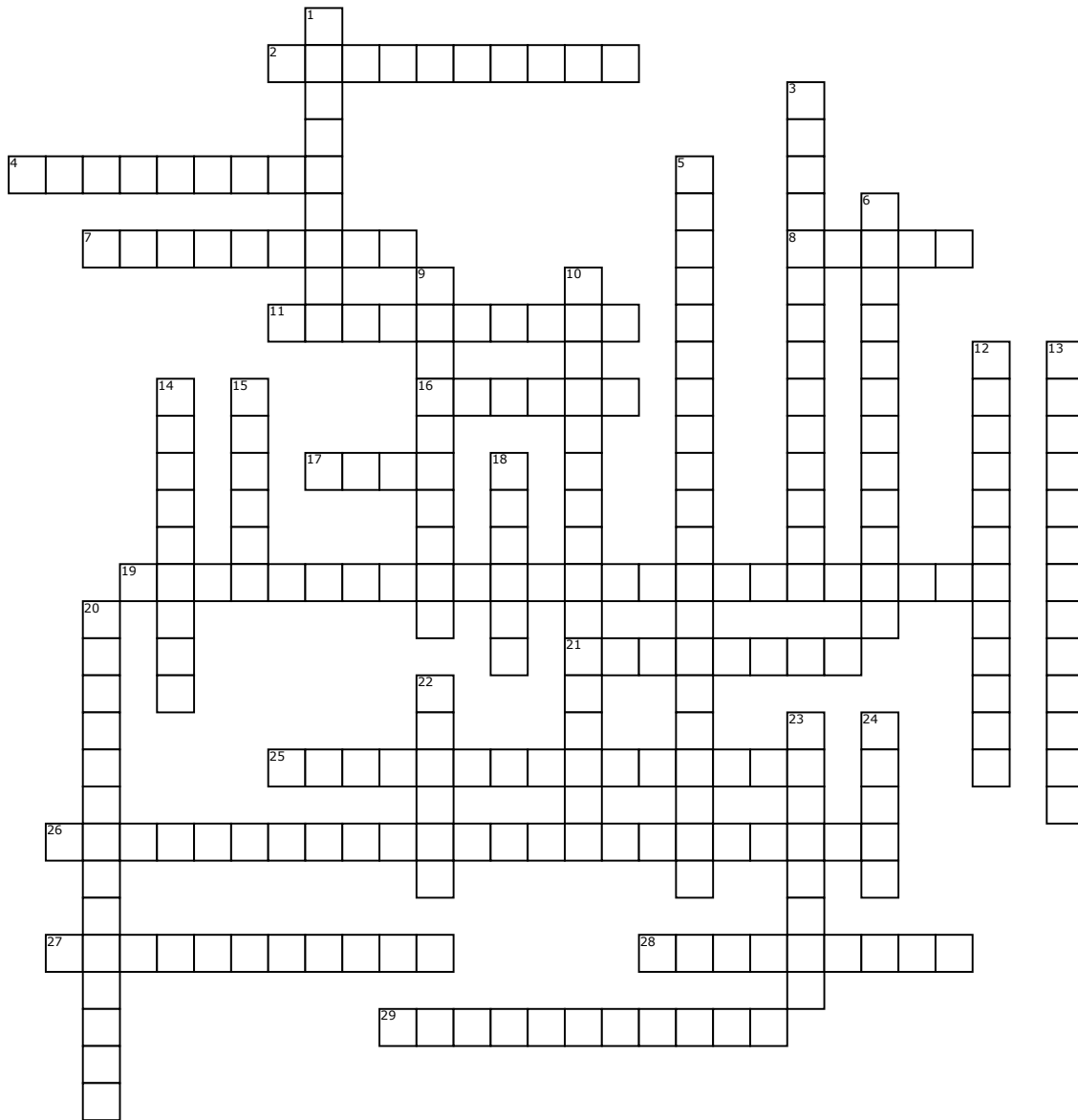


# THE WAYS OF THE WAVES



## Across

- 2.** when an object or a wave hits a surface through which it can't pass and bounces back  
**4.** is a repeated back and forth or up and down motion  
**7.** is the number of complete waves that pass a given point in a certain amount of time  
**8.** how far the wave travels in a given length of time or its distance divided by the time it took to travel that distance  
**11.** the bending of waves due to a change in speed when the wave enters a new medium at an angle  
**16.** in science its the ability to do work or cause change  
**17.** a disturbance that transfers energy from place to place  
**19.** the interference that occurs when waves combine to make a wave with a larger amplitude  
**21.** point of maximum amplitude and has an amplitude that is greater than zero  
**25.** waves that require a medium through which to travel  
**26.** the interference that occurs when two waves combine to make a wave with a smaller amplitude  
**27.** an instrument used to detect and measure earthquake waves and records the ground movements caused by seismic waves as they move through Earth

**28.** is the maximum distance that the particles of the medium carrying the wave move away from their rest positions.

**29.** the bending of waves around the edge of a barrier or through a narrow opening

## Down

- 1.** a increase in the amplitude of a vibration that occurs when external vibrations match in objects natural frequency  
**3.** a wave that moves the medium at right angles to the direction in which the waves travel  
**5.** waves that can travel without a medium  
**6.** the waves produced by earthquakes that include P waves S waves and Surface waves  
**9.** the distance between two corresponding parts of a wave  
**10.** a wave that moves the medium parallel to the direction in which the waves travel  
**12.** a combination of a longitudinal wave (P waves) and a transverse wave (S Wave) that travels along the surface of the medium; moves slower than S waves and P waves  
**13.** waves that appear to stand in one place even though it is really two waves interfering as they pass through each other  
**14.** point of maximum amplitude and has an amplitude is greater than zero

**15.** transverse waves with crests and troughs that move up and down or side to side; only travel through solids and move slower than P waves

**18.** longitudinal waves produced by earthquakes that are made up of compressions and rarefactions of rock inside Earth; they move faster than any other seismic waves and so arrive at distant places before other seismic waves; travel only through solids liquids and gases

**20.** a wave that moves the medium at right angles to the direction in which the waves travel

**22.** transverse waves with crests and troughs that move up and down or side-to-side; only travel through solids so they don't move through part of earth's core because it is liquid; move slower than P waves

**23.** earthquakes that occur underwater producing huge surface waves on the ocean

**24.** always are evenly spaced along the wave; is the point where the wave doesn't move at all and has a zero amplitude