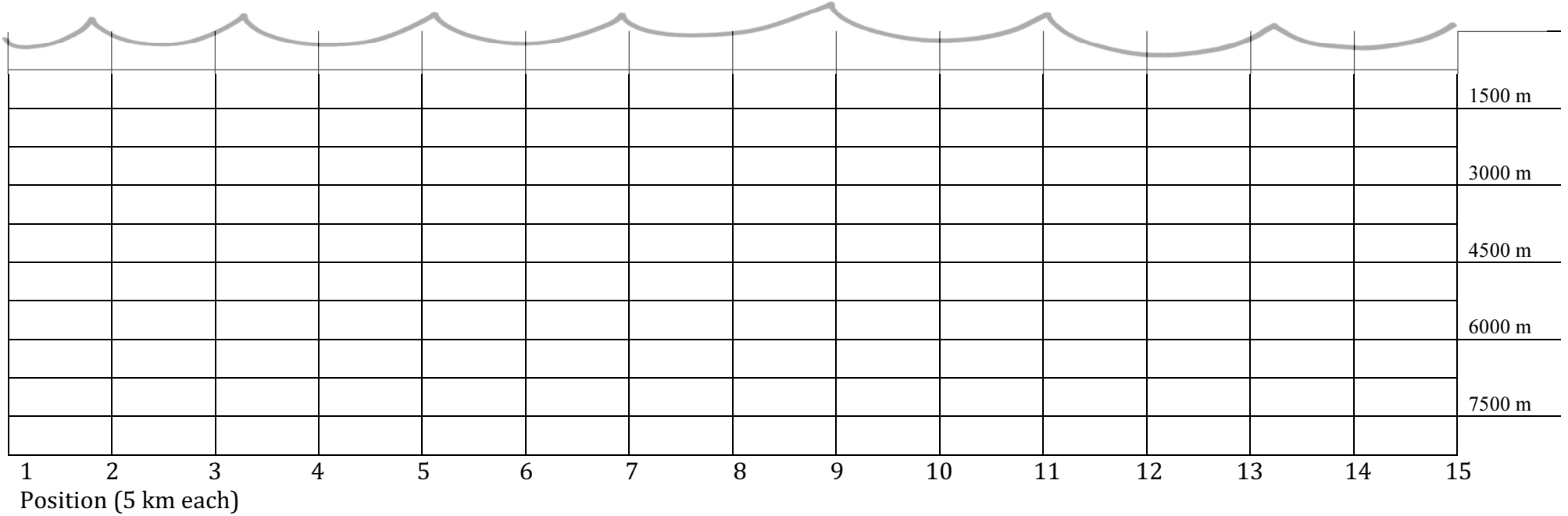


**Pings! Data Worksheet 1**

Receiver: Draw your Ocean Floor below! It should include at least three underwater features, examples are listed in the keywords. Label them. Do not show your cross-section to your classmates, but do get it checked by your teacher. Complete the data table below based on your ocean floor and the speed of sound.



**Calibration:**

\*The speed of sound in sea water depends on temperature, depth, and salinity, but will be estimated as 1500 m/s for this activity. For the grid above, sound would travel 2 grid lines (1500 m) in 1 second. Remember, the sound must travel from the ship to the ocean floor and back (round trip).

**Data:**

Position Number	Number of gridlines from ocean surface to ocean floor and back	Time delay in seconds (there an back)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

**Pings! Data Worksheet 2**

Transmitter: When your partner is ready (they have completed their data table), send a "Ping" to them at Position 1 and start the timer. Make sure they can see the timer, too, and they will "Ping" you back once the sound has traveled to the bottom of the ocean floor and back. Record the time in the data table below for each Position.

Next, use the speed of sound to calculate the number of grid lines each ping traveled roundtrip. From this, you should be able to predict your partner's Ocean Floor!

Position Number	Time delay in seconds (there and back)	Number of gridlines from ocean surface to ocean floor and back
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Draw your Predicted Ocean Floor below!

