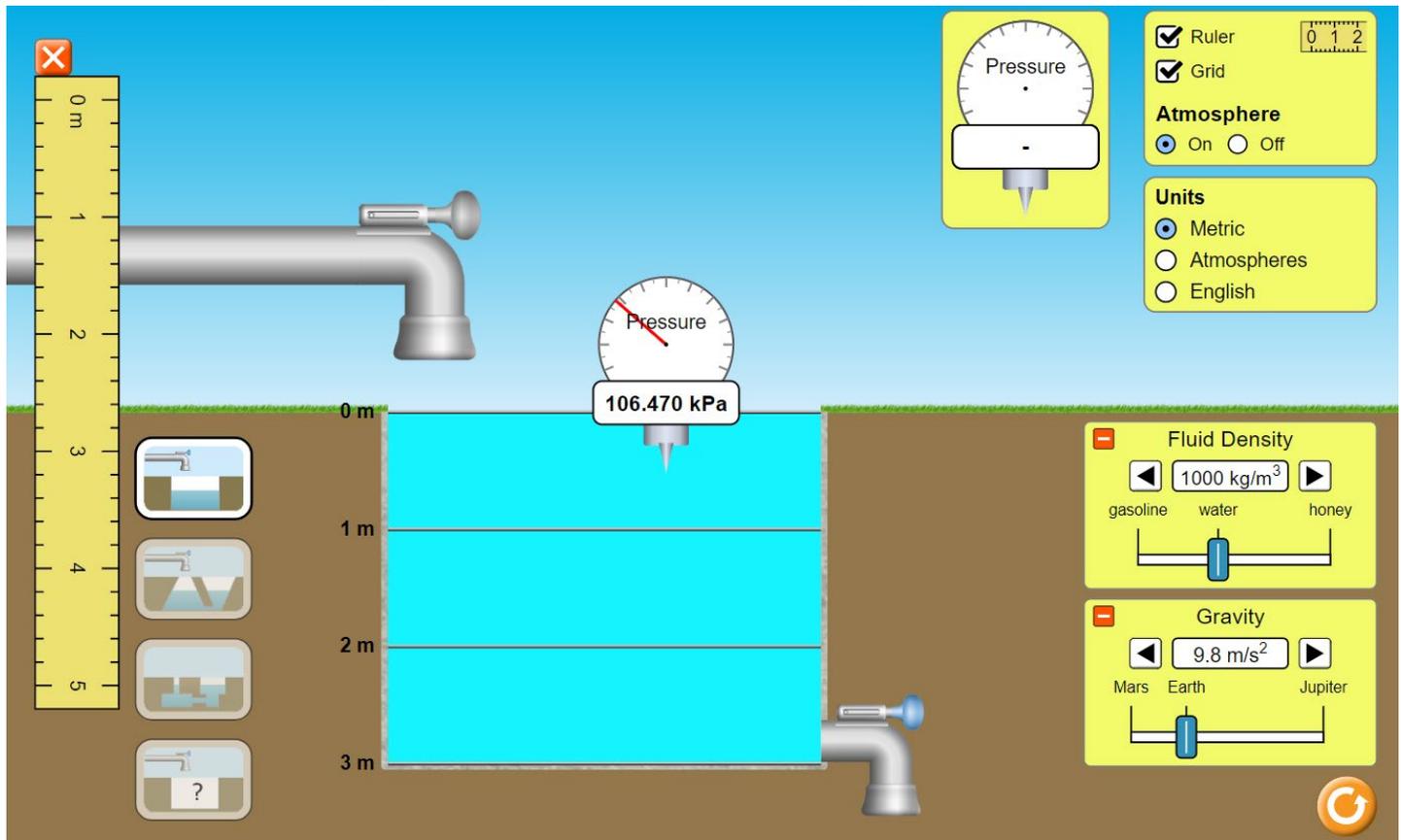


Exploring Pressure Underground Sim Lab



Directions

1. Go to the PhET simulation "Under Pressure"
 - <https://phet.colorado.edu/en/simulation/under-pressure>
2. Push the big Play arrow.
 - a. Start with the default settings.
 - b. Fill the tank with water.
 - c. Turn on the Grid and play with the Ruler.
 - d. Use the Grid to get you data table measurements.
3. Click on the pressure gauge to move it toward the water. Measure the pressure in the water at every 0.50 m from the surface to the bottom.

Data Table

Depth (m)	Pressure (kPa ¹)

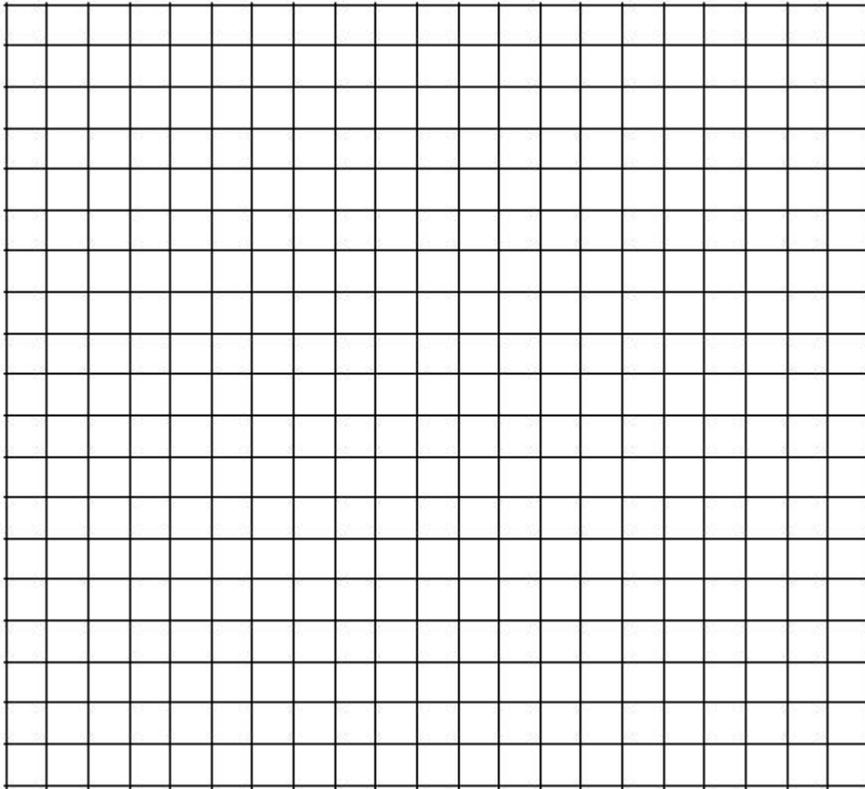
¹ unit of pressure and stress; a pascal is a pressure of one newton per square meter, or, in SI base units, one kilogram per meter per second squared.

4. Create a graph with depth on the x-axis and pressure on the y-axis.

Title: _____

Y-axis

Label:



X-axis Label: _____

TOPER Checklist:

- Title & label axis
- Organize your data
- Pencil
- Even scale & spacing
- Ruler

5. Which variable is the independent variable (x-axis)? _____

6. Which variable is the dependent variable (y-axis)? _____

7. How would your graph differ if you gathered data from Mars? Jupiter? Explain why.

8. What is the relationship between depth and pressure?

- As _____ increases, then _____ increases. Why do you think this happens? _____

9. Why might a well stop producing water?

10. Click on the icon with the question mark on the sink to access the mystery fluid portion. Determine the density of a mystery fluid. If your last name starts with A-H, test Fluid A. If your last name starts with I-N, test Fluid B. If your last name starts with O-Z, test Fluid C. Describe your method and results below.
