PhET Interactive Simulation Spoken Tutorials-Assignments
Funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and
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Tutorial Name: Fluid Pressure and Flow

## Assignment 1

1. Note the change in the values of pressure for the given values of depth.

| Fluid Density | Depth | Pressure |
| :--- | :--- | :--- |
| Water <br> $1000 \mathrm{Kg} / \mathrm{m}^{3}$ | 1 m | 111.0 kPa |
|  | 2 m | 120.8 kPa |
|  | 3 m | 130.3 kPa |
| Gasoline <br> $700 \mathrm{Kg} / \mathrm{m}^{3}$ | 1 m |  |
|  | 2 m |  |
|  | 3 m |  |
| Honey <br> $1420 \mathrm{Kg} / \mathrm{m}^{3}$ | 1 m |  |
|  | 2 m |  |
|  | 3 m |  |

2. Explain your observation.

Assignment 2

Observe the change in speed and pressure when, fluid density is changed to gasoline and honey.

## Assignment 3

A Tank of cubical shape is filled with honey to a height of 10.42 m . Find the pressure exerted by the honey at the bottom of the tank. The atmospheric pressure is 102.3 kPa . Density of honey is $1420 \mathrm{~kg} / \mathrm{m}^{3}$. Take $\mathrm{g}=9.81 \mathrm{~m} / \mathrm{sec}^{2}$.

## Assignment 4

A Tank of cubical shape is filled with gasoline to a height of 10.42 m . Find the pressure exerted by the gasoline at the bottom of the tank. The atmospheric pressure is 102.3 kPa .
Density of gasoline is $700 \mathrm{~kg} / \mathrm{m}^{3}$. Take $\mathrm{g}=9.81 \mathrm{~m} / \mathrm{sec}^{2}$.

