Balloons and Buoyancy

Spoken Tutorial Project

https://spoken-tutorial.org

National Mission on Education through ICT

Anandajith TS

IIT Bombay

27 September 2022

Learning Objectives

Learning Objectives

We will learn about,

Learning Objectives

We will learn about,

- **How different systems will float or sink**

Learning Objectives

We will learn about,

- **How different systems will float or sink**
- **How pressure, volume and temperature affect the motion of the balloons**

Learning Objectives

Learning Objectives

- **Relation between number of particles and pressure**

Learning Objectives

- **Relation between number of particles and pressure**
- **Relation between temperature and pressure**

System Requirement

System Requirement

This tutorial is recorded using,

System Requirement

This tutorial is recorded using,

- **Windows 11**

System Requirement

This tutorial is recorded using,

- **Windows 11**
- **Java version 16.0.1**

Prerequisites

Prerequisites

- **Learner should be familiar with topics in basic science**

Prerequisites

- **Learner should be familiar with topics in basic science**
- **Please use the link below to access the tutorials on PhET Simulations https://spoken-tutorial.org**

Link for PhET Simulation

Link for PhET Simulation

- **Please use the given link to download the PhET simulation https://phet.colorado.edu/en/simulations/balloons-and-buoyancy**

PhET Simulation

- **In this tutorial we will use the Balloons and Buoyancy PhET simulation**

Summary

We have learnt about,

- How different systems will float or sink
- How pressure, volume and temperature affect the motion of the balloons

Summary

- **Relation between number of particles and pressure**
- **Relation between temperature and pressure**

Assignment

Find how the changes in temperature and pressure affect the motion of:

- **Rigid Hollow Sphere**
- **Helium Balloon**

About the Spoken Tutorial Project

- **Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial**
- **It summarises the Spoken Tutorial project**

About the Spoken Tutorial Project

- Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it

Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- **Conducts workshops using spoken tutorials**
- **Gives certificates to those who pass an online test**
- **For more details, please write to contact@spoken-tutorial.org**

Answers for THIS Spoken Tutorial

- Questions in THIS Spoken Tutorial?
- Visit
  https://forums.spoken-tutorial.org
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer

You will have to register to ask questions

Acknowledgements

The Spoken Tutorial **project is funded by the** Ministry of Education, **Govt. of India**

Thank you

- **This is Anandajith TS from IIT Bombay signing off**
- **Thanks for joining**