



Virtual Labs on DIKSHA

Central Institute of Educational Technology
NCERT, New Delhi

Recommendation of NEP 2020



National Education Policy (2020) recommends-

- Creating virtual laboratories so that all students have equal access to quality practical and hands-on experiment-based learning experiences.
- Though, there is no substitute to hands-on experience of physical laboratory, virtual labs have the great potential to enhance actual laboratory experience.
- These lab based e-resources can help students in visualizing the concepts in a better manner.

Idea behind setting up of Virtual labs

- The virtual labs are based on the idea that lab experiments can be taught using internet more efficiently in a cost-effective manner.
- They will also benefit the students who do not have access to physical labs or schools where equipments are not available.
- Experiments can be accessed anytime and anywhere.
- Virtual labs overcome the constraints of time as physical labs are available only during school hours.

What will you experience?

Following resources are available on Virtual Labs on DIKSHA to enhance your learning experience:

- **Theory and Procedure** provide information of the concept related to the experiment.
- **Animation and Video** help in visualizing theoretical concepts.
- **Simulation** provide real time experience of performing experiments.
- **Viva voce** is for self evaluation, you can assess how much you have grasped the concept.
- **Feedback** is meant for improving the resources from user's perspective.

Steps to reach at your desirable resource

URL: <https://diksha.gov.in/>

- Search <https://diksha.gov.in/>



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English



DIKSHA

DIGITAL INFRASTRUCTURE FOR
KNOWLEDGE SHARING

An initiative of the National Council of
Educational Research and Training (Ministry of
Education, Govt of India)

EXPLORE DIKSHA

Explore DIKSHA's world of open digital content



NIPUN BHARAT MISSION

Introducing

Foundational Literacy and
Numeracy (FLN)



Explore



- Scroll banners to find Virtual labs vertical and click on its “Explore” icon.



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English

Virtual Labs

[Explore](#)

- Scroll down on the landing page of Virtual labs to reach eContent of classes 6-12.

Virtual Labs eContent

The screenshot displays a landing page for Virtual Labs eContent. At the top, the title "Virtual Labs eContent" is centered. Below the title, there are two rows of buttons. The first row contains four buttons labeled "Grade 6", "Grade 7", "Grade 8", and "Grade 9". The second row contains three buttons labeled "Grade 10", "Grade 11", and "Grade 12". Each button has a small icon of a hand cursor and the word "Explore". Below the "Grade 8" and "Grade 9" buttons, there are two language options: "हिन्दी Medium" and "English Medium", each with a small icon of a hand cursor.

Grade 6

Grade 7

Grade 8

Grade 9

Explore

Explore

Explore

Explore

हिन्दी Medium

English Medium

Grade 10

Grade 11

Grade 12

Explore

Explore

Explore

- Click on the “Explore” icon of the desirable class, select the medium of interaction, then choose a subject you wish to study.

Virtual Labs eContent

The screenshot displays a grid of virtual lab eContent options. Each option is represented by a grade-specific card with a background of circuit-like patterns. Below each card is an 'Explore' button, followed by medium selection options (Hindi and English) and a list of available subjects.

Grade	Mediums	Subjects
Grade 6	Hindi Medium, English Medium	Mathematics, Science
Grade 7	Hindi Medium, English Medium	Science, English, Mathematics
Grade 8	Hindi Medium, English Medium	Mathematics, Science, English
Grade 9	Hindi Medium, English Medium	Mathematics, Science, English
Grade 10	Hindi Medium, English Medium	Mathematics, Science
Grade 11	Hindi Medium, English Medium	Mathematics, Physics, Chemistry, Biology, Computer Science
Grade 12	Hindi Medium, English Medium	Mathematics, Physics, Chemistry, Biology

- Click on the Explanation resource to reach the link for related resources

The screenshot displays a digital interface for a biology lab manual. At the top, there are logos for the Ministry of Education and DIKSHA, a search bar with the text "Search or enter QR code", and a language selector set to "English". Below this is a yellow header bar with a back arrow, the text "Biology Lab Manual", and "English • Class 11", along with a share icon.

The main content area shows a preview of a lab experiment page titled "Lab Experiment: Study of Plasmolysis". The page contains the text: "Please click on the link mentioned below to access related resources." followed by a blue underlined link: "[Study of Plasmolysis](#)". The preview also features illustrations of a microscope, a cell diagram, and laboratory glassware.

Below the preview, the word "Plasmolysis" is displayed, along with share and fullscreen icons. At the bottom left, it says "Page 1 of 1 • 100%".

On the right side, there is a table of contents with a filter bar at the top. The filter bar includes "All", "Video", "Interactive", and "Docs". The table of contents lists 11 topics, each with a dropdown arrow:

1. Parts of Compound Microscope
2. Morphology of bacteria, fungi and different plant groups
3. External features of animals
4. Diversity in Plant Tissues
5. Animal tissues
6. Mitosis
7. Root modifications
8. Stem modifications
9. Leaf modifications
10. Flower and inflorescences
11. Description of plant family

At the bottom right of the interface, there is a blue button labeled "Ask Tara" and a small robot icon.

- Variety of resources will help you in your learning journey.

you are here-> home-> biology-> class 11-> study of plasmolysis

Study of Plasmolysis

Theory Procedure Animation Simulator Video Viva Voce Resources Feedback

Study of Plasmolysis

HELP

Select the concentration of NaCl solution:

0.1 %

Start

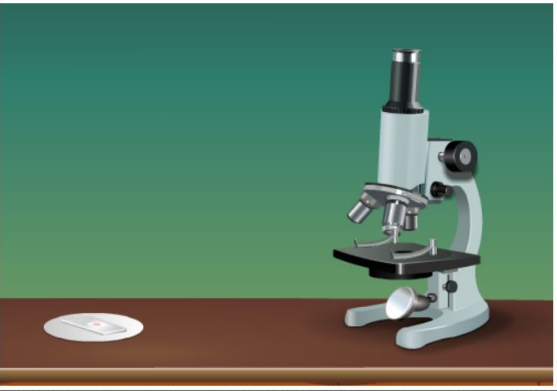
Result

Identify the type of solution:

Hypertonic solution

Hypotonic solution

Isotonic solution



**Enjoy self paced engaging
learning experience on Virtual
Labs on DIKSHA!**