CLIx for Students
CONNECTED LEARNING INITIATIVE

CLIx modules are suitable for use in middle and secondary school classes (ie VIII and IX) of all State and Central syllabi/programmes. All CLIx resources are Open Education Resources, released under Creative Commons Licenses. Each module is designed with digital activities, peer collaboration, hands on activity and assessment. Handbook/workbook/questions for reflection and teacher handbooks are provided. Each module includes wrap around notes for the teacher.

## Invitation to CLIx: An Interactive Approach to Digital Learning

Introduction and Indic typing through connected learning experiences of sharing, commenting and discussion. (2 weeks: 8 periods)

Analyzing with Spreadsheets to create and explore various constructions made possible by dynamic mathematics tools (2 weeks: 8 periods)
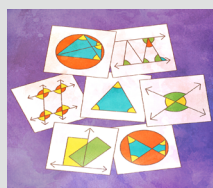
Drawing with Inkscape for skills of designing and drawing on a digital canvas, through learning to operate a vector drawing program. (2 weeks: 8 periods)
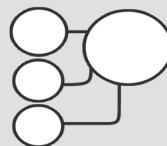
Organising with Mindmaps to understand and visualise the information and to understand the relationship between ideas. (2 weeks: 8 periods)

Mathematics

Geometric Reasoning. Resources including activities and games to develop geometric reasoning and analysis. Students work with geometric shapes, their properties and use informal deduction to gradually build their reasoning and understanding of the need for formal deductive proofs. Police Quad involving aliens and police, with 4 levels of difficulty, is an exciting digital game based approach to geometric reasoning. (3 weeks: 12 periods in 8th grade: 12 periods in 9th grade)
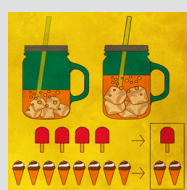
Proportional Reasoning aims to enable students to identify and understand multiplicative relationships in contexts involving comparisons, sharing, and scaling, leading to conceptual applications both within and across subject domains. (3 weeks: 12 periods)
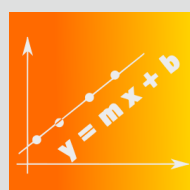
Linear Equations focuses on conceptual understanding of linear equations. It uses activities involving collecting data, and modelling situations using this data. The focus is on developing an understanding of the physical meaning of slope of a line in different situations. (3 weeks: 12 periods)

Communicative English

English Beginner is for students whose English vocabulary and grammar skills are limited. Theme-based lessons (for example, colours, the calendar, feelings etc.) build vocabulary and improve listening skills. Short audio stories in later lessons improve listening skills and encourage students to speak in English. (11 weeks: 22 periods)

English Elementary is for students who feel confident about English grammar and vocabulary and are now ready to learn to use English in real-life situations. Woven around audio stories, the lessons show how language functions such as social greetings, expressing points of view, giving directions etc., are communicated through conversations. (11 weeks: 22 periods)

Science

Atomic Structure is critical to the understanding of chemical representation, equations and reactions. The module includes digital activities to enable learners to grasp and contextualise modern chemistry in everyday life.
(2 weeks: 8 periods)

Basic Astronomy involves constructing a three dimensional dynamic mental model of the solar system and explaining and predicting common place astronomical phenomena such as apparent motion of the sun and the stars, seasons, phases of moon and so on through a digital game 'AstRoamer'.
(3 weeks: 12 periods)
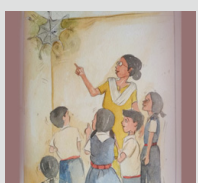
Ecosystem illustrates the connectedness between living organisms and the non-living elements of their ecosystem using a blended design of hands-on experimentation, digital simulations and videos.
(3 weeks: 15 periods)

Health and Disease is studied in its social and scientific contexts through observations, collecting data through surveys, making hypotheses based on their observations through independent short project works. (3 weeks: 12 periods)

Sound, a phenomenon integrated into our lives, is explored in the module. Production and propagation of sound, and measurement of its loudness and shrillness is investigated through hands-on experience, videos and audio editing software.
(3 weeks: 12 periods)

Understanding Motion module uses investigative and discovery based approach to describe and analyze motion. The video player analysis tool is used to analyse high speed motion of a ball on an inclined plane. Multiple representations to analysis motion come together in a digital game 'Run-Kitty-Run'.
(3 weeks: 12 periods)

Values and life skills

A story based approach to introducing students to key personal, social and professional values. Short videos on various careers provide basic information and a glimpse into 'world of work'.

Government Partners Government of Chhattisgarh, Government of Mizoram, Government of Rajasthan and Government of Telangana

Development & Implementation partners Centre for Education Research & Practice, Jaipur; Department of Education, Mizoram University, Aizawl; Eklavya, Bhopal; Homi Bhabha Centre for Science Educaton, TIFR, Mumbai; National Institute of Advanced Studies, Bengaluru; State Council of Educational Research and Training, Hyderabad, Telangana; Tata Class Edge, Mumbai; Inter - University Centre for Astronomy and Astrophysics, Pune; State Council of Educational Research and Training, Chhattisgarh.

The **Connected Learning Initiative (CLIx)** is a technology enabled initiative at scale for high school students. The initiative was seeded by Tata Trusts, Mumbai and is led by Tata Institute of Social Sciences, Mumbai and Massachusetts Institute of Technology, Cambridge, MA USA. CLIx offers a scalable and sustainable model of open education, to meet the educational needs of students and teachers.

Explore CLIx Modules at

https://demo-clix.tiss.edu