

### Value to the School

- Active & fun learning in English or regional language
- Non availability of tutors for present courses (MS-Office)
- Children learn on their own
- Minimum teacher workload
- Well matched with school Syllabus
- Training in Computer Practical periods itself
- Become skilled in hands-on Computers use
- Open Source Software — saving Schools from licensing fees.... in Crores of rupees

### How does a School join

User fee of  
₹5000/year  
paid up

Obtain School kit  
with  
Course DVD and Manual  
plus live training  
to Teacher

Follow-up by  
IIT Bombay team  
to help 24x7

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Learn Free Libre and Open Source Software through Spoken Tutorial  
<https://spoken-tutorial.org>

Spoken Tutorial Project is funded by  
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# IIT Bombay Spoken Tutorials for ICT Training in Schools



<https://spoken-tutorial.org>

Spoken Tutorials for the following Free Libre and Open Source Software (FLOSS) are available for ICT training in schools.

These tutorials will be useful for school teachers/students to familiarize with basic ICT tools in all major subjects.

Some of these FLOSS can be used as teaching tools in classroom teaching.

They can aid in making difficult concepts easy and interesting.

Courses are available in 15 regional languages, for ease of learning.



## Basic IT Skills



### Introduction to Computers

It is a series of videos intended for first-time users, who wish to learn how to use computers for day-to-day activities



### LibreOffice (Writer, Calc, Draw and Impress)

Useful for creating documents, slides for presentation and drawing  
Open source alternative for Microsoft Office Suite



### KTurtle

KTurtle is an educational programming environment that teaches the basic concepts of programming



### Tux Typing

Typing tutor created especially for children

## Animation and Graphics



### Inkscape

Vector graphics editor to create technical drawings, graphics, clip art, etc.



### Blender

3D graphics application to create interactive 3D applications, video games, animated film or visual effects



### Synfig

2D animation software

## Programming Languages



### Python

A programming language used for web development, software development and scientific computing



### C and C++

An object-oriented programming language used in web and desktop applications



### Java

An object-oriented language used for mobile applications, web applications, web servers and games

## Information Technology



### RDBMS - PostgreSQL

A powerful, open source relational database system



### Arduino (Basic Level)

Arduino is an open source platform used for building Electronics projects



### HTML

Predominant markup language for web pages, basic building-blocks of webpages

## Geography



### Marble

Marble is a 3D virtual globe application and geographical atlas. It is an interactive globe which has planets, stars and other celestial bodies.

## Mathematics



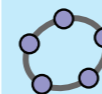
### PhET Simulations for Mathematics

These simulations help students to comprehend Math concepts through the use of graphics and interactive animations



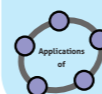
### Grace

It is a program for plotting 2D graphs. Users can choose line style, color, symbols, and fit data.



### GeoGebra v5.04

Interactive software for Algebra and Geometry



### Applications of GeoGebra

Video tutorials for Geometry, Algebra, Calculus, Trigonometry, Statistics and 3D geometry

## Science - Physics



### ExpEYES

It is a device to perform basic Physics and Electronic experiments



### PhET Simulations for Physics

These simulations help students to comprehend Physics concepts through the use of graphics and interactive animations



### Apps on Physics

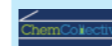
Apps on Physics are simulations that help us to understand the basic concepts of Physics.

## Science - Chemistry



### Jmol Application

Shows chemical structures and macromolecules in 3D, Measures bond angles, bond lengths and shows stereoisomerism



### ChemCollective Virtual Labs

Chemistry Lab Simulation for practical Chemistry lab experiments



### PhET Simulations for Chemistry

These simulations help students to comprehend Chemistry concepts through the use of graphics and interactive animations



### Avogadro

3D viewer, Molecular Mechanics calculations and Energy Minimizations



### GChemPaint

Only for Linux machines, 2D drawings of Chemical structures

## Science - Biology



### PhET Simulations for Biology

These simulations help students to comprehend Biology concepts through the use of graphics and interactive animations



### Jmol Application

Shows 3D structures of Biomolecules (Proteins, DNA, RNA, etc.)