

Clue:3 Click on Image it will open the hyperlink.

Students hints: *Hold the control button and move the cursor on the image. The hand symbol will show one of the image. Then click and find the treasure clue.*

ASHA KANINI

COMPUTER SCIENCE CURRICULUM

Asha Chennai has been teaching computer science to students in primary and middle schools in Tamil Nadu for the last 5+ years. There was no curriculum available for Computer Science in Tamil Nadu state board. We considered the CBSE curriculum and felt it was very outdated and proceeded in an unengaging manner.

We have developed a curriculum on our own. The curriculum covers both digital literacy (how to use a computer) as well as computational thinking (programming computers to do various things). Our goal was that the curriculum should be implementable even in schools with very limited infrastructure. We still serve several schools where the only computer is the laptop that our teacher carries with her.

Computer Science is not something you learn with a pen and paper. Children need to actually do things on a computer to learn. In our curriculum we lay emphasis on project work. We devote the entire third term (Jan to April) to project work. Classes 4 and 5 develop a presentation while classes 6 to 8 develop a programming project with assistance from the teacher.

There were two important things to cover in the curriculum.

Digital Literacy and Programming

Digital Literacy

The children need to understand the world of computers and Internet. Then need to feel comfortable navigating through that world. The test of digital literacy is not in what you know but in how comfortable you feel about doing something that you currently do not know. If you suddenly get a drone which interfaces with your laptop or smartphone, how comfortable are you in visiting the website of the drone and configuring it to work and also understand how the whole thing works. This is the goal of digital literacy.

We introduce basic digital literacy in class 1 itself with children learning to become comfortable with mouse and keyboard. At class 3 they develop a sense of the computer with its storage, persistence of information. In class 4 and 5, we teach them OpenOffice. In the process they also being to understand the windowing environment and the operating system that lies underneath with multi-tasking, event handling etc. In class 6 to 8, while we continue to build on these, we also introduce the students to the Internet – browsing, how to search for information, email, chatting, social media etc.



THIRD PARTY TOOLS WE USE FOR TEACHING

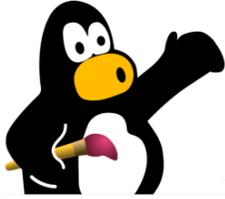
We have selected a set of tools to best teach computer science to children in primary and middle schools. These are world-class tools used in many of the best international schools. Here are the tools that we use.

GCompris



A high quality educational software suite, including a large number of activities for children aged 2 to 10.

Tuxpaint



Kids are presented with a blank canvas and a variety of drawing tools to help them be creative.

OpenOffice



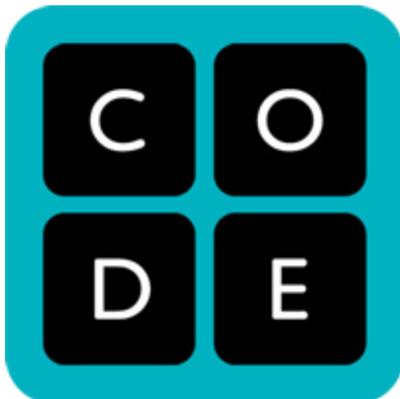
Apache OpenOffice is an open-source office productivity software suite.

Blockly



Games for tomorrow's programmers.

Code.org



Anyone can learn computer science.

Scratch



A block-based visual programming language and website targeted primarily at children.