



INTRODUCTION TO ATAL TINKERING LAB





DO YOU KNOW WHAT IS HAPPENING HERE ?



Simplest form
of tinkering !



BUT WHAT IS ACTUALLY HAPPENING HERE ?



Someone
looked at a problem
Thought differently
Created a solution &
that is tinkering





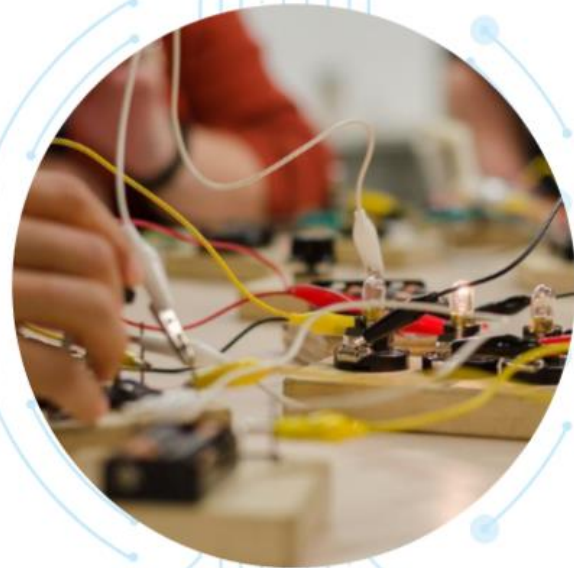
WHAT IS TINKERING?



Tinkering is to find innovative and creative solutions to problems which may be local or global in nature. It develops the aptitude to explore, experiment and learn. Tinkering is an attempt to inculcate '**Let's Try Something New**' attitude among students of all age groups. It motivates students to apply multiple new approaches to solve a single problem.



It is getting involved with technology i.e. experimenting with various technology tools like electronics and robotics to understand their potential and use them to find solutions for local and global problems.





LETS LOOK AT WHAT HAS BEEN HAPPENING SO FAR...

3500 BC

Somewhere in Mesopotamia someone cut out a slice of a log and chiseled a hole in the middle to create the first wheel.

2006

TWEEL, a kind of wheel that merges the tire and wheel together without needing air to deflect impacts. The Tweel is the start of a new age of wheels called "Morph wheels" because the wheels morph to fit their terrain.



WAS THIS ALSO TINKERING ... MAY BE!

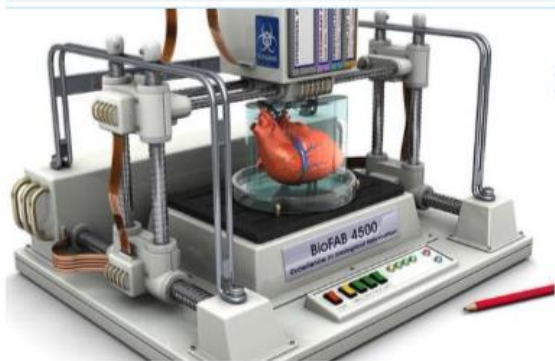
Tinkering always leads to innovation - from the stone-age man tinkering with rocks to light a fire to inventing the first wheel. Intel



From
Newton's apple



Steve Job's
apple



From 3D printers for organs



To digestible sensors



Smart Phones

A smartphone is any mobile phone with advanced mobile operating system that combines features of a personal computer with other features useful for handheld use.



Virtual Reality

Virtual Reality is a technology marvel that allows the user to be in an imaginary setting using virtual reality headsets to generate realistic images, sounds and other sensations that replicate a real environment.



IRONMAN SUITS FROM COMICS TO REALITY





ALL THESE ARE RESULTS OF TINKERING



Of thinking different



Of trying new things



Of looking for solutions to problems





WHAT IS ATAL TINKERING LAB ?

A space or an area, within the schools, for young minds to

Think new

Think big

Think out of the box

Innovate

Be creative

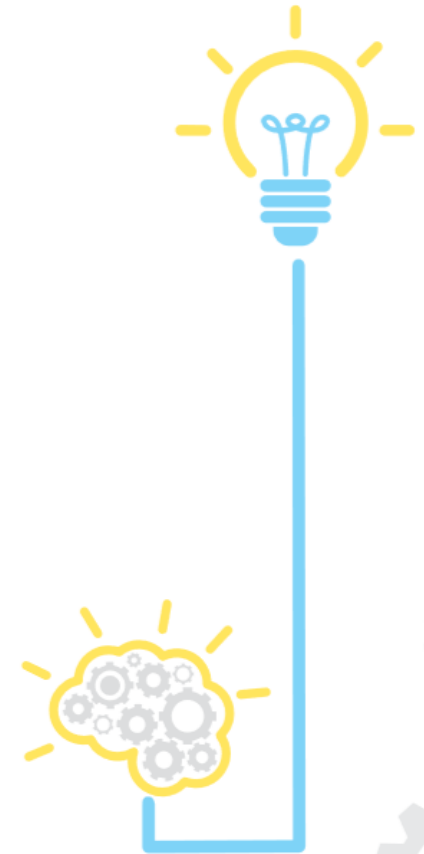
Be Imaginative

Look for solutions for global and local issues

Become entrepreneurs

Use the latest technology tools & materials

Get Inspired

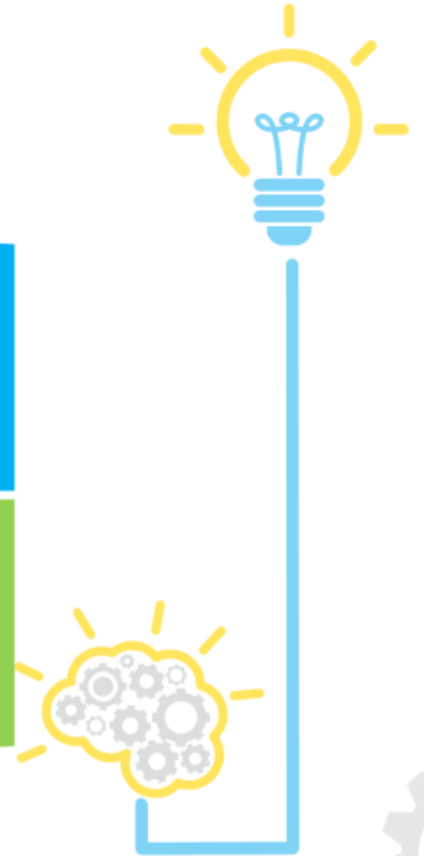




WHAT IS ATAL TINKERING LAB ?

It is a space for converting ideas into reality - a space for thinking exponentially and not in a structured sequential manner

It is a lab to encourage people to explore alternatives and create options that did not exist before.





MORE ABOUT ATAL TINKERING LABS

Atal Tinkering Labs is a national level program - by National Institution for Transforming India (NITI Aayog) - the premier policy 'Think Tank' of the Government of India.

The key objectives of the program are:

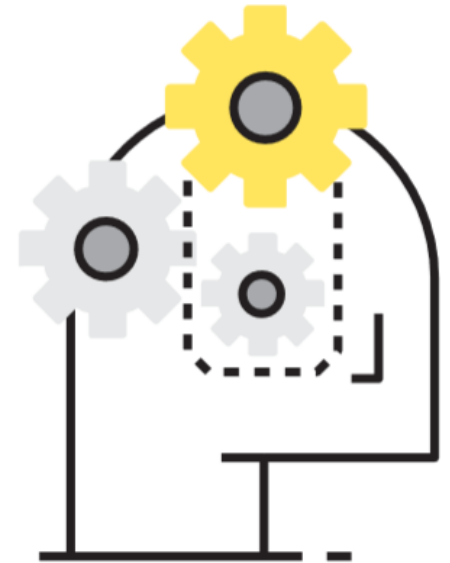
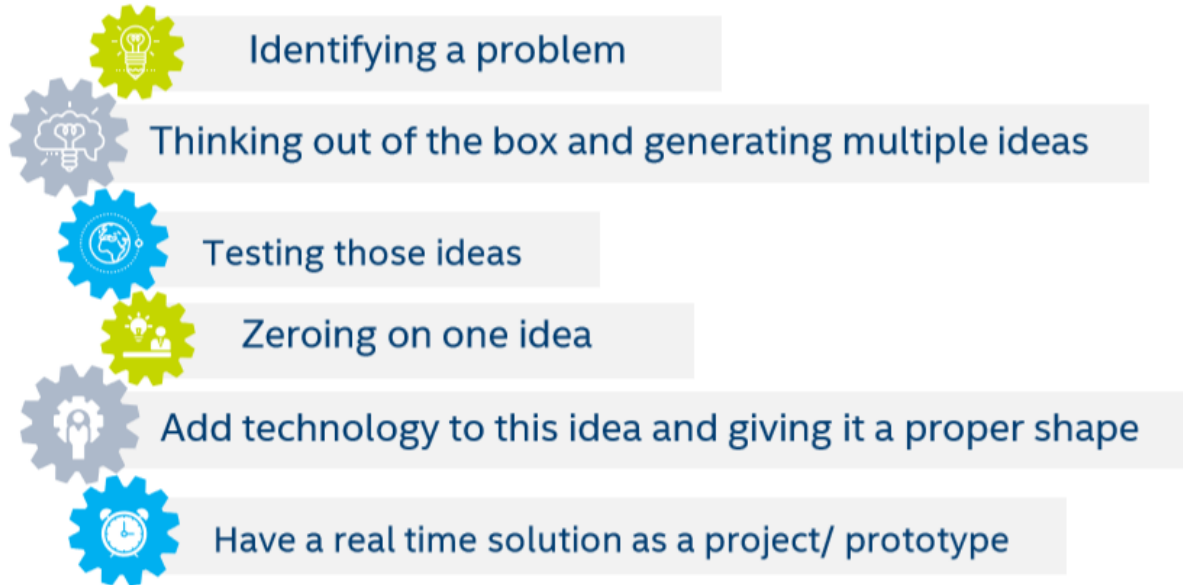
- To develop an eco-system that promotes innovation in India.
- To create a work space in schools where young minds can learn innovation skills and sculpt ideas through hands-on and do-it-yourself projects.
- To provide facilities to work with latest technologies & tools - electronics, sensors, open source micro-controller boards, 3D printers etc. to create technology innovations.
- To create opportunities for the young students to work and learn in a flexible environment & help build innovative solutions to India's unique problems.

To know more about ATL – NITI Aayog please visit <http://niti.gov.in/>





HOW DOES TINKERING WORK?



From now on, you will call yourself a **Tinkerer!** With the 'Do It Yourself' approach, you can now start experimenting beyond your school curriculum.



EXPECTATIONS FROM YOU



Consider this as a great opportunity



Be ready and open to think over and above your regular school work



Give sufficient time to these activities



Think of new and exciting things that you can do/ create/ make in a Tinkering Lab



Put these ideas in to action



Involve and include more and more students to work and benefit in these labs





THANK YOU