



Bal Bharati
PUBLIC SCHOOL

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WINTER HOLIDAY HOMEWORK-CLASS IV

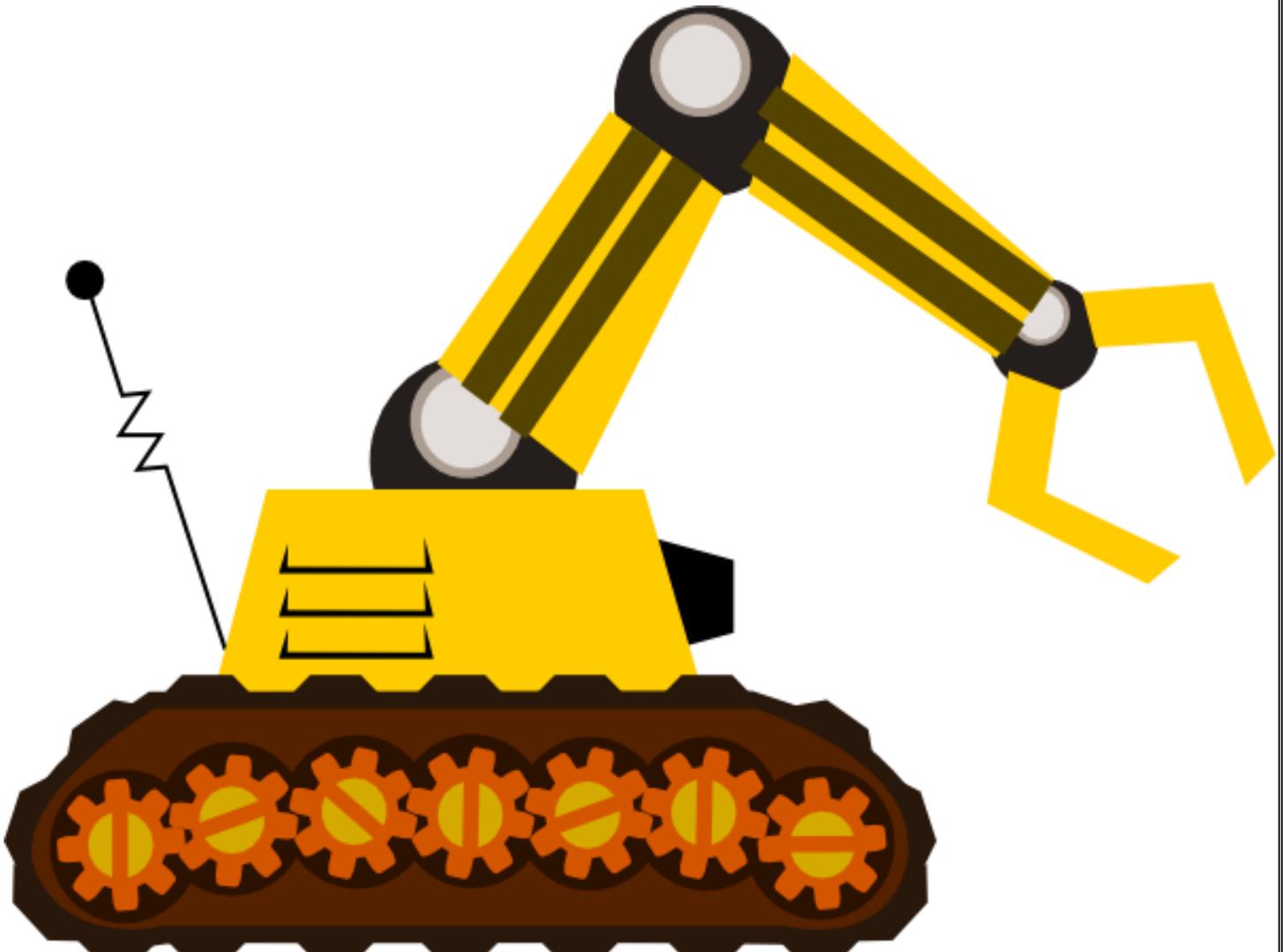
MAGNIFICENT MACHINES

Dear Students,

The winter holidays are upon us and there is a nip in the air. Everyone is bringing out colourful quilts and warm clothes and everyone wants to bask in the sun. Groundnuts and jaggery rule the roost and so does Makki ki Roti and Sarson ka saag.

We all use various machines like heaters and geysers to keep us warm. While enjoying the weather, let's also race our minds and think about these machines and other machines which have done so much to make our lives easy. These winter holidays, let's celebrate magnificent machines, through interesting assignments and projects.

Have a great time and wishing you a very happy new year!



ENGLISH

MAGNIFICENT MACHINES



Thomas Alva Edison invented 'ELECTRIC BULB', John Logie Baird invented 'TELEVISION' and Charles Babbage invented 'COMPUTER'. Without their inventions, there would have been no TV, MOVIES or COMPUTERS. How do you think the children spent their evenings before these inventions? Do you think their lives were better than yours? Write an essay describing your views regarding the same.

Imagine you grew up to become a famous inventor and you were given an opportunity to invent something extraordinary to make people's lives better, what would you like to invent and why? Write a 200 words long essay titled, 'My Dream Invention'.

Please do this project on A4 sheets and the completed project is to be submitted on 15 Jan 2019.

BLOG-A-THON

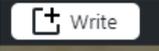
A **blog** is an online journal or informational website displaying information in the reverse chronological order, with latest posts appearing first. It is a platform where a writer or even a group of writers share their views on an individual subject.

Create a blog on "Can you give up certain luxuries to save environment?"

Instructions:

- 1.The blog can contain poetry, essay or play.
- 2.Maximum 300 words are allowed.
- 3.The students to use English to write the blog content.
- 4.Use the LOGIN id and password given below.
- 5.Do not publish the post. Save it as draft.

Steps:

- Click www.wordpress.com/
- Click Login
- Enter Login Id:
Pr.DepartmentBBPS@gmail.com and password:
bbps@noida.
- Click  Write
- Add title and content.
- Click Save Draft on the top Right corner.

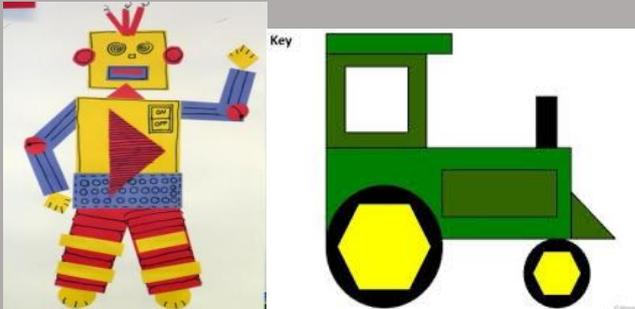


Please take a screenshot of your blog on A4 sheet and the completed project is to be submitted on 15 Jan 2019.

MATHEMATICS

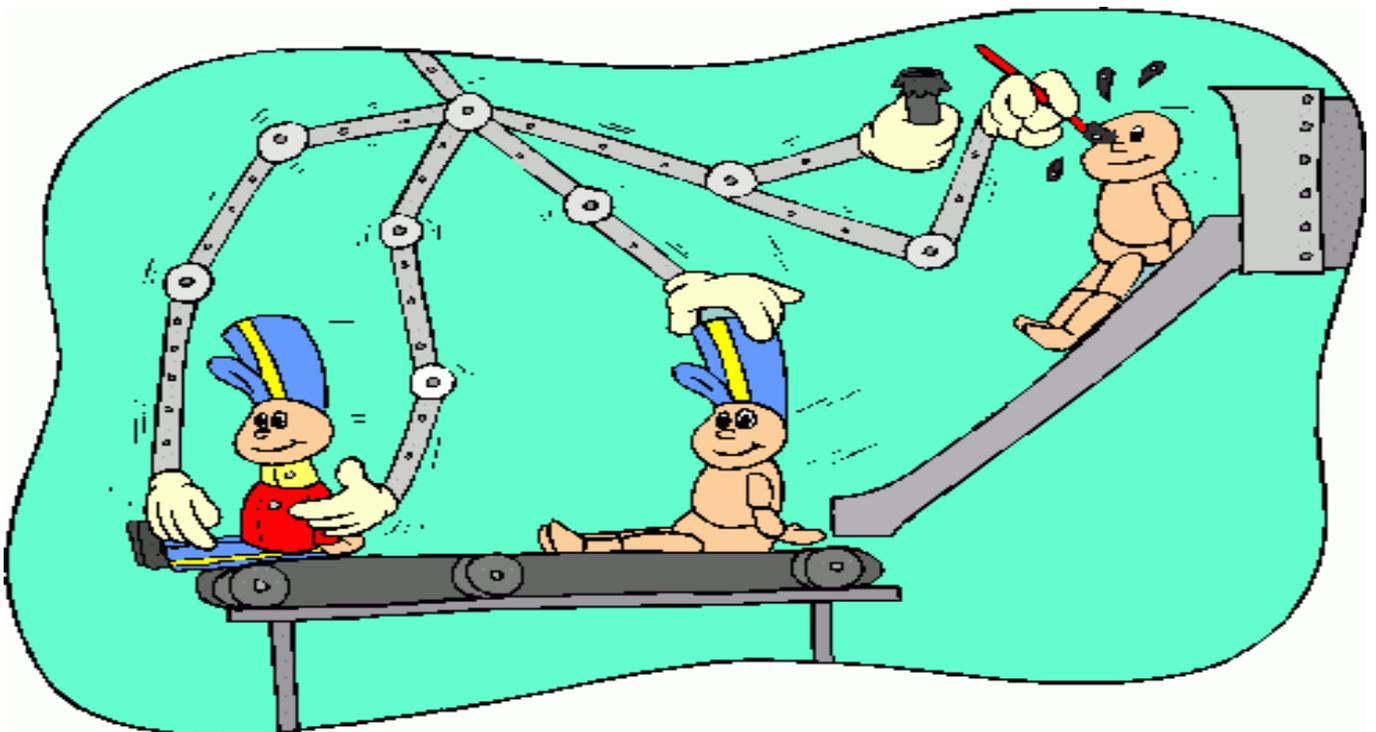
1. Make a 3-D machine model using geometrical shapes (rectangle, cube, sphere, cone, pyramid, cylinder etc)

Examples:



or

2. Take any three gadgets, say 3 different mobiles. Find their length and width. Write the fraction of their width to length in A4 size sheet. Compare these fractions.



Please do this project on A4 sheets and the completed project is to be submitted on 15 Jan 2019.

RUBIK'S CUBE

STRIVE,STRIVE AND STRIVE UNTIL THE GOAL IS REACHED

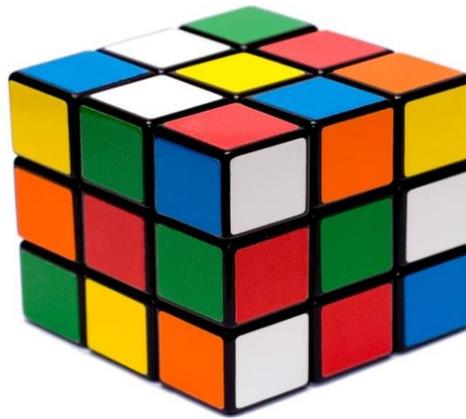
To ensure that the young Rubik's cube Champions keep harnessing their talent in solving the puzzle completely in a jiffy, we propose to grade Round IV maths lab activities on the basis of the following criterion

Classes I and II – solving complete cube in 2 minutes.

Classes III - V – solving complete cube in 1 minute.

You may refer to following videos for help.

- <https://www.quora.com/How-can-I-solve-Rubiks-Cube-in-less-than-a-minute>
- <https://www.quora.com/How-can-a-beginner-solve-a-3x3-Rubiks-cube>
- https://www.youtube.com/watch?v=OCSrLEINY_Q
- <https://www.youtube.com/watch?v=WqNoyRoE1KE>



happy cubing

FUN FACTS



1. The world record for solving the Rubik's Cube is 5.55 seconds by Mats Valk
2. A robot made of Legos solved the Rubik's Cube in 3.253 seconds
3. The largest Rubik's Cube ever made is a 17x17x17 cube.
4. Over 350 million Rubik's Cube have been sold worldwide
5. It has been calculated that there are 43,252,003,274,489,856,000 possible permutations of the Rubik's Cube.

SCIENCE

MAGNIFICENT MACHINES

The first Indian satellite 'Aryabhata' was launched on 19 April 1975 from Kapustin Yar, a Russian rocket launch and development site in Astrakhan Oblast using a Kosmos-3M launch vehicle. It was built by the Indian Space Research Organisation.

In the context of the above information, explore and answer the following:

- 1). How are satellites launched into the orbit?
- 2). Name the different types of artificial satellites and write their purpose.
- 3). How do weather satellites gather information?
- 4). Write name and purpose of 4 artificial satellites launched by India and paste their pictures also.

Please do this project on A4 sheets and the completed project is to be submitted on 15 Jan 2019.

SOCIAL STUDIES

PROJECT

We know how machines have changed our world, but we seldom know that how these machines came to be developed. These holidays let's discover more about these machines. Choose any one machine from the given list:

1. Steam Engine
2. Typewriter
3. Computer
4. Bicycle

Make a project on the history of your chosen machine. You could include the following information in your project:

- a. Description of Machine
- b. Functions of Machine
- c. History and discoverer
- d. Different kinds of this machine
- e. Any interesting facts related to machine
- f. How this machine impacted the world around us?

You could include interesting pictures or cut-outs of articles/ advertisements from newspaper/magazines about your chosen machine to spruce up your article. Please do this project on A4 sheets and the completed project is to be submitted on 15 Jan 2019.

Have a Wonderful New Year!