

PROJECT WORK : Creative Mathematics Project Ideas

(SAMPLE)

General Guidelines:

- Each student is required to make a handwritten project report according to the project allotted. Please note down your project number according to your Roll Number.

Roll Number	Project Number
1-5	1
6-10	2
11-15	3
16-20	4
21-25	5
26-30	1
31-35	2
36-40	3
41-45	4
46-50	5



- A project has a specific starting date and an end date.
- It has specific objectives.
- List the sources of the information collected.
- General lay-out of the project report has the following format

Page Number	Content
Cover Page	Your Name, Class, Roll No., Title of project
1	Table of contents – Page titles
2	Brief description of project. How would you proceed?
3-10 (may change)	Procedure (With pictures)
11	Mathematics used /involved
12	Conclusion /Result
13	List of resources (List of encyclopedia ,websites , reference books , journals etc)
14	Acknowledgement

Project1

Useful Link:

<http://britton.disted.camosun.bc.ca/fibslide/jbfibslide.htm>

<http://ewaysmathematics.blogspot.com/search/label/Fibonacci>


Objectives

Exploring Fibonacci numbers.


Description

1. Fibonacci numbers are a sequence of numbers i.e 1, 1, 2, 3, 5, 8, 13, 21, 34The first number of the sequence is 1, the second number is 1, and next term is equal to the sum of the previous two numbers of the sequence itself.



		<p>2. Write the next 20 terms of the sequence generated by it.</p> <p>3. History of the mathematician who gave this concept.</p> <p>4. Explore in nature the things that correspond to Fibonacci numbers with pictures. For example: When counting the number of petals of a flower, it is most probable that they will correspond to one of the Fibonacci Numbers. It is seen that:</p> <p>a) White calla lily has one petal b) Euphorbia have two petals c) Trillium have three petals d) Columbine have 5 petals</p> <p>Explore more such examples with pictures from internet. (give at least 8 examples)</p>
<p><u>Project 2</u></p> <p>Useful Link: http://ptr1.tripod.com/</p>	<p>Exploring Pascal Triangle</p>	<p><u>Description</u></p> <p>(take upto 10 row)</p> <p>1. Definition 2. History 3. How to construct it</p>



		<p>4. Mention about the properties</p> <ol style="list-style-type: none"> The sum of the numbers in any row is 2^n, when n is the number of the row. Property related to prime number. Hockey stick pattern Fibonacci sequence located through Pascal triangle. <p>5) Make a model on Pascal triangle.</p>
<p>Project 3</p> <p>Useful Link:</p> <p>http://www.wikihow.com/Make-a-3D-Paper-Snowflake</p>	<p>Making 3D Snowflakes</p>	<p>Description</p> <p>Make a model with project report having contents</p> <ol style="list-style-type: none"> What is 3-D snowflake Its applications in daily life. Mathematics involved in it. Procedure of the model.
<p>Project 4</p> <p>Useful Link:</p> <p>http://mykhmsmathclass.blogspot.com/search/label/Platonic%20Solids</p>	<p>Making platonic solids</p>	<p>Description</p> <ol style="list-style-type: none"> Introduction Mention about 5 platonic solids and its properties. History Procedure of making Platonic solids. Verify Euler's Formula



		for each of the solid.
Project 5 Useful link http://mykhmsmathclass.blogspot.com/search/label/Mathematics%20Around%20us	<u>Objective</u> Exploring Mathematics around us.	<u>Description</u> <ol style="list-style-type: none"> 1. Look around yourself. <ul style="list-style-type: none"> • In the house... • In the garden... • In the market... • In a bank.... • In the nature... so on 2. Click photographs using a digital camera/mobile and explore the hidden mathematics. 3. Click minimum 20 photographs.

The weightage of 8 marks for project work could be further split up as under

Identification and statement of the project : 01 mark

Procedure/processes adopted : 02 marks

Write-up of the project : 02 marks

Interpretation of result : 01 mark

Viva : 02 marks

