

MT. COLUMBUS SCHOOL
Dakshinpuri, New Delhi – 62

HOLIDAY HOMEWORK (SUMMER VACATION)

SESSION: 2017-18

CLASS- IX

Prepare An Integrated Project Of Different Subjects On The Topic Given Below:-

Topic: FLORA AND FAUNA

ENGLISH

Note:-Assignment work for all the subjects to be done in one notebook and the project work of all the subjects to be done in the project file (Ring- binder)

PROJECT

1. Write a short note on International Union for Conservation of Nature (IUCN).
According to the Red Data Book of International Union for conservation of nature, there are many critically endangered species in India .Out of these, Write about any 10 such species of India including the following details:
 - (a) Pictures
 - (b) Area where these species are found.
 - (c) Cause of extinction.
 - (d) How can such animals be saved?
2. Choose any 2 pictures based on Sub Terranian Flora and write a picture composition based on it.

ASSIGNMENT

1. As a source of news, the newspaper is almost indispensable to those whose thirst for Knowledge is insatiable. Design a newspaper of about five pages using handmade cartridge sheets. Use the following format-
First page: Heading, national news, weather, new inventions
Second page: International news, notices, report
Third page: School events, poems, articles, word power, puzzles, cartoons
Fourth page: Sports news
Fifth page : Editorial (topic should be relevant current issues in India)
(Advertisements can be included on every page)

2. Read the novel “Gulliver’s Travels” and make notes on the following.

1. Character Sketch of Gulliver, King of Lilliput, Mr. Thomas Willcocks, Yahoos
2. Humorous incident of the novel
3. Antelope

HINDI

PROJECT

“आयुर्वेद में अनेक ऐसे पेड़-पौधों का वर्णन मिलता है जो औषधि के लिए प्रयोग में लाए जाते हैं। ऐसे दस पेड़-पौधों के चित्र चिपकाकर उनके लाभ संक्षिप्त में बताएँ।”

ASSIGNMENT

1. ‘पर्यावरण संरक्षण’ को ध्यान में रखते हुए स्वयं को प्लास्टिक या बोतल मान कर आत्मकथा की शैली में 200 शब्दों में लेख लिखिए।
2. पराधीन भारत की कौन-कौन सी जेले मशहूर थी? इस बारे में जानकारी प्राप्त कर दस जेलों की सूची बनाकर उनके शहर व स्थान का नाम लिखिए।

MATHS

PROJECT

1. Collect the number of any 5 endangered species of fauna
 - a) Prepare a frequency distribution table of the collected data.
 - b) Find the measures of central tendency.
(Mean, Median and Mode)

ASSIGNMENT

1. Using origami sheet, represent the factorization of a quadratic polynomial using middle term splitting method.
2. Complete the given worksheet in notebook.

WORKSHEET

1. Express each of the following in $\frac{p}{q}$ form
 - a) $0.\overline{459}$ b) $0.\overline{47}$
2. Examine, whether the following numbers are rational or irrational.
 - a) $(3 + \sqrt{4})^2$ b) $2 + \sqrt{3}$ c) $(2 + \sqrt{2})(2 - \sqrt{2})$
3. Represent $\sqrt{3}$ on the numbers line.
4. Add: $(2\sqrt{3} - 5\sqrt{2})$ and $(\sqrt{3} + 2\sqrt{2})$
5. Simplify:
 - a) $\sqrt[4]{162}$ b) $625^{\frac{-3}{4}}$

6. Find the value of x if $(\frac{2}{3})^x (\frac{3}{2})^{2x} = \frac{81}{16}$
7. Rationalize the denominator of the following:
- a) $\frac{2}{\sqrt{3}}$ b) $\frac{5-\sqrt{6}}{5+\sqrt{6}}$ c) $\frac{1}{2-\sqrt{3}}$
8. Simplify:
- a) $2^{\frac{2}{3}} \cdot 2^{\frac{1}{5}}$ b) $(\frac{1}{3^3})^7$ c) $7^{\frac{1}{2}} 8^{\frac{1}{2}}$
9. Divide x^3+1 by $x+1$ using long division method and verify it by remainder theorem.
10. Find the remainder when,
 $F(x) = 4x^3-12x^2+14x-3$ is divided by $x - \frac{1}{2}$
11. Show that $(x+3)$ is a factor of $69+11x-x^2+x^3$
12. Find the value of p if $(x+1)$ is a factor of the polynomial $2x^3-2x^2+x+p$
13. Evaluate each of the following by using identities:
- a) 107×93 b) $95 \times 95 - 85 \times 85$
14. Write each of the following in expanded form :
- a) $(3x-y)^3$ b) $(2x+y)^3$
15. Factorise:
- a) $2x^3-3x^2-17x-30$
 b) $x^3-6x^2+11x-6$
 c) x^3+x^2-4x-4
 d) $3x^3-x^2-3x+1$

SCIENCE

PROJECT

Make a project on the conservation of plants and animals showing the importance of any one endangered species of plant and animal in India covering the following topics:

- (a) Scientific Name
- (b) Habitat
- (c) Causes of Extinction
- (d) Steps for its conservation

ASSIGNMENT

BIOLOGY

1. Rahul wants to build up his body very quickly without following right exercises and balanced diet. Instead he started eating readymade food supplements. Discuss the merits and demerits of both exercise and foods supplements and paste the related pictures.

PHYSICS

2. Rohan was driving his car on a road bridge over a river. There was a signboard at the start of bridge mentioning a speed limit of 20 km/hr.

(a) Discuss the Significance of Speed Limit mentioned on the sign boards.

(b) What is the role of Seat belt provided in the cars?

CHEMISTRY

3. Anil's sister accidentally added some water into the bottle containing olive oil and she was afraid of the scolding. Anil helped his sister and separated the water from olive oil using bottle as separating funnel.

a) What is the principle of using and working of separating funnel?

b) Suggest two separation techniques used to separate liquid mixtures.

4. Write the following experiments in your science lab manual

BIOLOGY

- To prepare temporary mounts of onion peel.
- To test the presence of starch in the given food sample.

CHEMISTRY

- To determine the melting point of ice and boiling point of water.
- To carry out the following reactions and classify them as physical or chemical change.
 - Iron with Copper Sulphate solution in water
 - Burning of Magnesium in air.
 - Zinc with dilute Sulphuric acid.

PHYSICS

- To establish relationship between weights of rectangular wooden block lying on a horizontal table and minimum force required to move it using a spring balance.

SOCIAL SCIENCE

PROJECT

1. Prepare a report on the following topics. Collect information, facts, figures and related pictures.

- | | |
|--|-----------------|
| a. Floristic region/ floral zone | (Roll no.01–05) |
| b. Eco region of Madagascar defined by the World Wildlife Fund | (Roll no.06–10) |
| c. Natural Landscaping(native gardening) | (Roll no.11–15) |
| [eg. Banksia, Spinulosa & Sydney (Australia) local plant which attracts wildlife] | |
| d. Wildlife of Brazil | (Roll no.16–20) |
| e. Marine biodiversity (Western Pacific) | (Roll no.21–25) |
| f. Role of FFI (Fauna and Flora International) Bridging the gap between business and biodiversity. | (Roll no.26–30) |
| g. Australian mega fauna. | (Roll no.31–35) |

ASSIGNMENT

1. Prepare a report on Indian countryside with the help of statistical data. Collect information on the following parameters of farming:
 - a. Crops grown
 - b. Mono-cropping and multiple cropping
 - c. Use of HYV seeds
 - d. Irrigation facilities
 - e. The condition of labourers and supplementary employment opportunities
2. Prepare a project report showing a relation between India and its neighbouring countries. Collect information on socio-cultural exchanges, trade with India, current problems, sharing of water resources and environmental issues etc.
 1. India and Bangladesh (Roll no. 01-05)
 2. India and Myanmar (Roll no. 06-10)
 3. India and China (Roll no. 11-15)
 4. India and Nepal (Roll no. 16-20)
 5. India and Bhutan (Roll no. 21-25)
 6. India and Sri Lanka (Roll no. 26-30)
 7. India and Pakistan (Roll no. 31-35)
3. Can a disaster be prevented? Enumerate some of the ways through which impact of a disaster can be reduced. Prepare a layout on evacuation and rescue plan in case of earthquake for your house.

INFORMATION TECHNOLOGY

PROJECT

1. Make a PowerPoint presentation in a CD on "FLORA AND FAUNA" along with pictures & details.

Flora of a continent (any five continents)	Roll no. 1 to 12
Fauna of a country (any five countries)	Roll no. 13 to 24
Flora and fauna of a region (any five regions)	Roll no. 25 to 36

ASSIGNMENT

Foundation of IT - Create a project report on types of computer in MS Word (printout):

1. Embedded computer
2. Programmable computer
3. Notebook computer
4. Personal computer
5. Workstation
6. Mainframe
7. Super computer

HEALTH & PHYSICAL EDUCATION

PROJECT

1. Prepare a project report on the following activities:
 - a. Trekking (Roll no. 01-10)
 - b. Rafting (Roll no. 11-20)
 - c. Rock climbing (Roll no. 21-30)
 - d. Under water diving (Roll no. 31 onwards)

WORK EDUCATION

PROJECT

1. Prepare a Lamp Shade.

The following materials are needed

- a) Ice cream stick
- b) Wire
- c) Bulb
- d) Holder
- e) Fevicol



Or

The following materials are needed

- a) Ice cream stick and kulfi stick
- b) Wire
- c) Bulb
- d) Holder
- e) Fevicol



VISUAL & PERFORMING ARTS

PROJECT

1. List the tribal dances of India, explain any two in detail with pictures on A4 size sheet.

NOTE: Revise whole syllabus done in the class and prepare yourself for the exam to be held after the vacation.