IQRA PUBLIC SCHOOL, ALIGARH
ACTIVITIES FOR HOME ISOLATION PERIOD

CLASS I

ENGLISH

➢ **Arrange the following words in alphabetical order:**

1. Doll	6. Banana	11. Eagle
2. House	7. Pencil	12. Igloo
3. Garden	8. Kite	13. Noodles
4. Ant	9. Candle	14. Flower
5. Zebra	10. Shirt	15. Jungle

➢ **Write the following words below the correct vowel.**

fan	ink	owl	eye	gun
hen	toy	jam	mug	pin

A	E	I	O	U

➢ **Copy a page of your Cursive writing book of previous class in your four line notebook every day. Try to copy the writing pattern from the cursive writing book making proper use of four lines to improve your hand writing.**

NOTE: You can use your old four line notebook to do the given work.

Maths

1.Count and write number of spoons/toys at your home in words and figure.
2.Write any five important days and their dates also.
3.Draw any 4 -shapes on sheet and write their names also.

EVS

Q1. Draw the traffic light and color it.
Q2. Collect pictures of different means of transport from old magazines and newspapers and paste them on the drawing sheet.
Q3. Draw and color National Flag.

CLASS II

ENGLISH

> **Circle the odd one out from the following, draw the pictures of odd ones and colour them:**

1. car	train	ship	book
2. apple	orange	potato	grapes
3. hen	snake	parrot	peacock
4. plant	tree	grass	butterfly
5. flower	red	purple	pink

> Add **a** or **an** before the following words:

1. ………………. glass
2. ………………. octopus
3. ………………. purse
4. ………………..elephant
5. ………………..swing

6. ……………cactus
7. ……………ice cream
8. ……………engine
9. …………….bottle
10. ……………ear

> **Copy a page of your Cursive writing book of previous class in your four line notebook every day. Try to copy the writing pattern from the cursive writing book making proper use of four lines to improve your hand writing.**

> **<u>NOTE: You can use your old four line notebook to do the given work.</u>**

Maths

1.Count and write number of pencils and erasers at your home and add it.

2.Draw any 5-solid shapes on sheet and name them.

3.Name a fruit whose

1st letter is P……….

2nd and 3rd letter are P…………..

5th letter is G ……………….

EVS

Q1. Dry and paste -A small plant with roots.

Q2. Draw few things which help us to clean our body.

Q3. Make a greeting card on any one festival.

CLASS -III

<u>MATHS</u>
- ❖ Make a clock and numbering on it in roman numerals.
- ❖ Make tangram of 5-piece and 7-piece.
- ❖ Make any pattern ie- rangoli, numeric, shape.
- ❖ Make pictograph of any 5ie- score in cricket , favourite, flavours of ice-cream in your family.

<u>EVS</u>
1. Make a family tree with pictures of there family members.
2. Write the names of family member using Braille Script.
3. Draw labelled and colorful diagram of two roots and stems we eat.

<u>ENGLISH</u>
- ☐ WORD CHAIN: Prepare a word chain of 200 words starting with the word 'SCHOOL'. Make sure not to repeat any words.
- ☐ SENTENCE MAKING: Choose any five words everyday from your word chain and use them in sentences of your own.
- ☐ RECOMMENDED READING: Read the short stories from this link
  http://www.english-for-students.com/Classics.html

CLASS -IV

<u>MATHS</u>
- ❖ Make comparison of Indian and International System.
- ❖ Write your previous classes final score in Roman numerals.
- ❖ Make factor tree for 20,25,30,35 and 40.
- ❖ Write fractions of letters of vowels and consonant in 'umbrella'.

<u>EVS</u>
1. Draw a poster and write a slogan on "SAVE ENVIRONMENT".
2. Find out the language, clothes, food and landforms of any 5 states of India and write on sheet.
3. Collect pictures of herbivores, carnivores and omnivores animals and paste on sheet.

<u>ENGLISH</u>
- ☐ READING: Read a chapter from your English Course Book. Underline the difficult words. Find out their meanings from the dictionary. Do this for all the twelve chapters of your course book. Use these difficult words in sentences of your own.
- ☐ COMPOSITION: Write an essay of 100-150 words on safety measures you are observing to safeguard yourself and your family from COVID-19 during this home quarantine period.
- ☐ RECOMMENDED READING: Read the collection of O. Henry's short stories "THE BEST OF O. HENRY collected stories" available on Juggernaut app which can be downloaded from Google Play Store.

CLASS -V

<u>MATHS</u>
- ❖ Make comparison between Indian and International place value system
- ❖ Make calendar and clock.
- ❖ Make bar graph of last 4 classes and find its Percentage also.
- ❖ Find perimeter of only 5 irregular objects with the Help of thread.

<u>EVS</u>
1. Make a poster showing Healthy Lifestyle also write slogan on it.
2. Make a poster showing symptoms and preventions from Corona virus.
3. Write any 10 points how your parents help you to increase immunity in these lockdown days.

<u>ENGLISH</u>
- ☐ DIARY ENTRY: Make a scrap book using pages from your old notebooks. Do your daily diary entry on how you are spending your days in home quarantine.
- ☐ BIOGRAPHY WRITING: Write a short biography of a famous personality whom you admire the most.
- ☐ RECOMMENDED READING: Read the novel Treasure Island by Robert Louis Stevenson available on Google Play Books app which can be downloaded from Google Play Store.

CLASS-VI

ENGLISH
1. Choose some big words and make all the possible words using the letters used in it. (Without using the Dictionary)
2. Listen to the BBC news every day to enhance your pronunciation. (Listen everyday even if you don't understand)
3. Read short stories by O Henry. Mark the difficult words and note it down in a copy.
4. Read loudly for at least thirty minutes every day. (Improve your reading skill)

Note. All the books and reading material is available on the Google Book app.

COMPUTER
1. Write various method to represent data in computer.
2. Create colorful presentation on the theme'save water'. Use your creativity and add more slides in this project.
3. Collect data from internet on the given topics:
   a. Computer hacking
   b. Indian tourism
4. Gather the information on the topic generation gap through internet collect pictures and write an essay on it.
5. Create a PowerPoint presentation on the topic 'rainwater harvesting'.
6. Make an attractive poster on 'Blood donating campaign'.
7. Create a chart in MS Excel and make a data of the countries which is affected by Corona virus.
8. Create an email account and send an email to your friend .
9. In MS Word how you can apply a drop cap, Column formatting and how you can set line spacing and paragraph spacing in your word document?
10. Discuss the work of Control panel and taskbar?

MATHS
1. To find the HCF and LCM of the given numbers by activity method.
2. To find the addition and subtraction of fractions by activity method.

SCIENCE

Have you ever given a thought that there are many women scientists from our country who have brought laurels to India? Use the following ICT tools to make presentation on EMINENT WOMEN SCIENTISTS of India.

PowerPoint, On A4 Paper

Make a presentation on the contribution of our "EMINENT SCIENTISTS ". Your presentation should contain:

Introduction with title

Education

Their research and awards

Closure with your Name, Class/Sec

SOCIAL SCIENCE

Note: Students are advised to do the following questions.

1. On an outline map of India mark your own state as well as our neighbouring states.

2. Select five Tourist Places of India (choice is yours) and write five informative points on each one of them.

3. Write the names of the Chief Minister and Governor of your home state, neighbouring states and pairing states which are Arunachal Pradesh and Meghalaya.

4. Write down the Preamble of the constitution of India and National Anthem of India.

CLASS-VII

ENGLISH

1. Listen to the BBC news every day to enhance your pronunciation. (Listen everyday even if you don't understand)

2. Read short stories by O Henry and Mark Twin . Mark the difficult words and note it down in a copy.

3. Read loudly for at least thirty minutes every day. (Improve your reading skill)

4. Write the summary of all the stories that you read.

5. Try to narrate the stories and discuss with your friends.

Note. All the books and reading material is available on the Google Book app.

COMPUTER

2. Write about the Impact of Internet in our daily life.

3. Create the population chart by using MS Excel 2010.

4. Create a MS Word document showing "Different type of viruses". Make use of SmartArt. Also explain each type and give example.

5. Create a presentation on topic 'Computer Care'. Insert 10 slides and add various animation effects to make it more attractive. Add different transition effects to each slide.

6. Make a list of educational websites that are useful for you.

7. Draw a Solar System using different objects and group it as one in Adobe Flash.

8. Make at least 10 Slides about Corona virus and its effects in the World and India.

9. Prepare the list of hardware and software installed on your computer.

10. What is the CD Burning? Install a (Nero CD/DVD burning software) in your Computer and burn a DVD.

11. Write an essay on'Online education'.

MATHS ACTIVITY

1. To verify using squared paper that all congruent triangles are equal in area but the triangles equal in area may not be congruent.

2. To verify by paper cutting and pasting that if two parallel lines are intersected by a transversal then

i. Each pair of corresponding angles are equal.

ii. Each pair of alternate interior angles are equal

SOCIAL SCIENCE
 Note: Students are advised to do the following questions.
1. On an outline map of India locate, mark and write the names of all the States and Union Territories.

2. On a Physical Map of India mark and write the name of three major - Rivers, Lakes and Airports.

3. Make a paper collage of the Tourist Places, Food and Culture of that Tourist Place and particularly of the pairing state which are Arunachal Pradesh and Meghalaya.

4. Draw and colour the National symbols and write down few important points as why these symbols have been chosen.

SCIENCE
Q1. Collect news paper cuttings and make a collage for creating awareness about the spread of Covid-19.
Q2. Make a poster on water conservation or industrial pollution.

CLASS-VIII

ENGLISH
1. Listen to the BBC news every day to enhance your pronunciation. (Listen everyday even if you don't understand)
2. Read short stories by O Henry, Mark Twin, A tale of two Cities, Alice in Wonderland. Mark the difficult words and note it down in a copy.
3. Read loudly for at least thirty minutes every day. (Improve your reading skill)
4. Write the summary of all the stories that you read.
5. Try to narrate the stories and discuss with your friends.

Note. All the books and reading material is available on the Google Book app.

COMPUTER
1. Write advantages and disadvantages of different types of topologies with diagram.
2. Create a database on topic "Library Management System".
3. Google 'Computer network'. Paste an article and picture in MS word. Write five benefits of networking.
4. Design a webpage of your choice in HTML.
5. List some Computer Safety rules at home.
6. Create a motion tween animation on the star or ball shape.
7. Create an animation to give an illusion that a small tree is converting into a big tree, using shape tweening.
8. Write an article on 'Computer Security and Crime'.
9. Create a presentation on topic "E-Commerce".
10. Write the names of founders of HTML, Google, Yahoo, Gmail, Hotmail, Rediffmail, Wikipedia, Microsoft, Intel Processor etc.

MATHS
1.Make a Cube and a Tetrahedron by cardboard and then verify the Euler's formula .
2.(a) Learn and write
     (i) definition of a quadrilateral and its properties
     (ii) types of quadrilaterals and their properties
  (b) verify the angle sum property of a quadrilateral by activity method.

SOCIAL SCIENCE
 Note: Students are advised to do the following questions.
1. Write down the Fundamental Rights and Fundamental Duties of an Indian Citizen.
2. On an outline map of India mark and write the names of at least three -National Parks, Biosphere Reserves, Cotton Textile Industries, IT Industries and Iron & Steel Industries.
3. What are the Initiatives taken and Facilities provided by your State Government during Corona Virus (Covid-19) Pandemic?

SCIENCE

Q1. a. What are viruses?

    b. In which category COVID-19 falls?

    c. Write its causes, symptoms and precautions that could be taken to avoid its spreading by making a chart or collage.

Q2. Learn about metals and non-metals their symbols; with exception learn reactivity series also.

CLASS-IX

ENGLISH

1. Listen to the BBC and CNN news every day to enhance your pronunciation. Also try to compare the news given by these two channels. (Listen everyday even if you don't understand)
2. Read short stories by O Henry, Mark Twin, A tale of two Cities, Alice in Wonderland. Mark the difficult words and note it down in a copy.
3. Read loudly for at least thirty minutes every day. (Improve your reading skill)
4. Write the summary of all the stories that you read.
5. Try to narrate the stories and discuss with your friends.

Note. All the books and reading material is available on the Google Book app.

COMPUTER

1. Google, Create and present a slide show on topic 'Computer hardware and Software' or 'Role of ICT in Education'.
2. Prepare your school time table in an MS Excel spreadsheet. Highlight the subject periods of computer in it.
3. Make an attractive poster on "Save the Future and Go Green" in MS WoWord.
4. Design a cover page of Artificial Intelligence book by using WordArt, ClipArt and Shapes.
5. Create a greeting card and Calendar in Ms Publisher.
6. List 10 tips for better posture/ technique at the computer.
7. Create an invitation card for New Year Party. Send it to five friends using mail merge.
8. Write an article on "Software Piracy".
9. Classify computer on the basis of principles of operation, size and purpose.
10. Explain second and third generation, with its relevant devices.

MATHS ACTIVITY

1. Make a project on History of Pie. Search 5 different mathematical symbols and write their use.
2. To verify by paper cutting and pasting that sum of three interior angles of a triangle is supplementary.

SOCIAL SCIENCE

Note: Students are advised to do the following questions.
1. Why is Disaster Management important?
2. Define in your own words about NDMA (National Disaster Management Authority) of India.
3. What are the Initiatives taken and Facilities provided by the Central Government of India during Corona Virus (Covid-19) Pandemic?
4. On an outline map of India mark-
   • Major types of Soil
   • Major Dams
   • Rice and Wheat producing areas
   • Major Coal Mines and Oil Fields
   • Major Nuclear Power Plants
   • Major National Highways

PHYSICS
Q1. Prepare a model (preferably working) using the waste material available at your home in relevance to anyone of the 3R's, thus helping mankind in maintaining ecological balance.
Q2. Make a project report on conventional sources of energy.

Note: List of polyatomic ions are given to you with the name **"Polyatomic Ions and Valency Chart"**.
Kindly go through the chart and revise it and learn those which are not learnt to you.
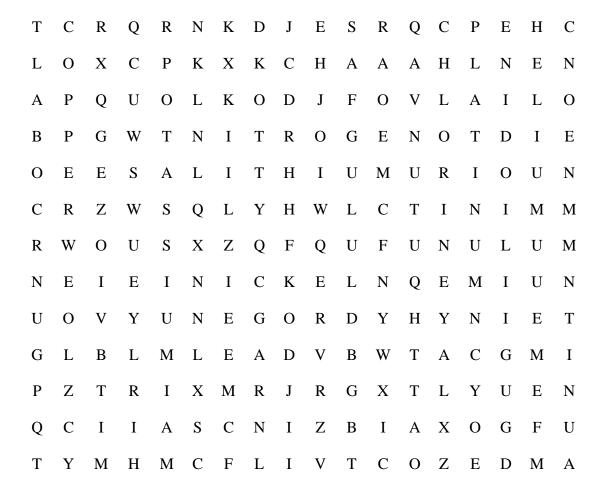Then Try to solve worksheet no. **2, 3 &4**.

Polyatomic Ions and Valency Chart

Symbols and Names of Some Common Polyatomic Ions and One Molecule					
NH_4^+	ammonium ion	OH^-	hydroxide ion	CN^-	cyanide ion
SO_4^{2-}	sulfate ion	O_2^{2-}	peroxide ion	CNO^-	cyanate ion
HSO_4^-	hydrogen sulfate ion	$C_2H_3O_2^-$	acetate ion	SCN^-	thiocyanate ion
SO_3^{2-}	sulfite ion	ClO_4^-	perchlorate ion	CO_3^{2-}	carbonate ion
NO_3^-	nitrate ion	ClO_3^-	chlorate ion	HCO_3^-	hydrogen carbonate
NO_2^-	nitrite ion	ClO_2^-	chlorite ion	$C_2O_4^{2-}$	oxalate ion
PO_4^{3-}	phosphate ion	ClO^-	hypochlorite ion	$S_2O_3^{2-}$	thiosulfate ion
HPO_4^{2-}	hydrogen phosphate	CrO_4^{2-}	chromate ion	Hg_2^{2+}	mercury(I) ion
$H_2PO_4^-$	dihydrogen phosphate	$Cr_2O_7^{2-}$	dichromate ion	H_3O^+	hydronium ion
PO_3^{3-}	phosphite ion	MnO_4^-	permanganate ion	NH_3	ammonia
Formulas and Names for Some Common Acids (*all names should have acid added*)					
H_2SO_4	sulfuric	H_3PO_4	phosphoric	HNO_3	nitric
$HC_2H_3O_2$	acetic	HCl	hydrochloric	HBr	hydrobromic
$HClO_3$	chloric	$HClO_2$	chlorous	$HBrO_3$	bromic

Name _____ **Date** _____

Try your hardest to see how many of the element words you can find in this puzzle game. Find it out and write their names in your notebook.

Element Word Search

```
T  C  R  Q  R  N  K  D  J  E  S  R  Q  C  P  E  H  C
L  O  X  C  P  K  X  K  C  H  A  A  A  H  L  N  E  N
A  P  Q  U  O  L  K  O  D  J  F  O  V  L  A  I  L  O
B  P  G  W  T  N  I  T  R  O  G  E  N  O  T  D  I  E
O  E  E  S  A  L  I  T  H  I  U  M  U  R  I  O  U  N
C  R  Z  W  S  Q  L  Y  H  W  L  C  T  I  N  I  M  M
R  W  O  U  S  X  Z  Q  F  Q  U  F  U  N  U  L  U  M
N  E  I  E  I  N  I  C  K  E  L  N  Q  E  M  I  U  N
U  O  V  Y  U  N  E  G  O  R  D  Y  H  Y  N  I  E  T
G  L  B  L  M  L  E  A  D  V  B  W  T  A  C  G  M  I
P  Z  T  R  I  X  M  R  J  R  G  X  T  L  Y  U  E  N
Q  C  I  I  A  S  C  N  I  Z  B  I  A  X  O  G  F  U
T  Y  M  H  M  C  F  L  I  V  T  C  O  Z  E  D  M  A
```

1 . Look up the following polyatomic ions Write down the formula (*including the charge*):

Ammonium _____   Acet**ate** _____   Carbon**ate** _____

Dichrom**ate** _____   Hydroxide _____   Nitr**ate** _____

Oxal**ate** _____   Sulph**ate** _____   Phosph**ate** _____

Permangan**ate** _____   Nitr**ite** _____   Cyanide _____

Sulphite _____   Hydrogen carbon**ate** _____

2. What is common about <u>most</u> of the names of the polyatomic ions?

3. What element do most of the polyatomic ions have in the formula?

4. What type of elements are found in the polyatomic ions? (Metal/Non-metal).

5. Name the following polyatomic compounds:

NaOH _____ $NaClO_3$ _____

$NaC_2H_3O_2$ _____ $Ca(OH)_2$ _____

$BaSO_4$ _____ $ZnCO_3$ _____

$AlPO_4$ _____ $AgNO_3$ _____

6. Write the formulas for the following compounds:

Sodium nitrate   _____   Lithium chlorate_____

Potassium acetate   _____   Magnesium nitrate_____

Aluminum sulfate   _____   Ammonium acetate_____

Potassium dichromate _____   Sodium sulfate_____

Ammonium sulfate   _____   Potassium nitrate_____

FILL IN THE MISSING FORMULA AND ITS CHARGE

Formula	Name	Formula	Name
Anion		**Anion**	
	Cyanide		Carbonate
	Thiocyanate		Oxalate
	Nitrite		Sulfate
	Hydroxide		Thiosulfate
	Acetate		Sulfite
	Nitrate		Chromate
	Zincate		Dichromate
	Perchlorate		Phosphate
	Chlorate		Phosphite
	Chlorite		Arsenate
	Hypochlorite	**Cation**	
	Hydrogen sulfate		Ferrous
	Aluminate		Stannous
	Hydrogen carbonate		Mercury (II)
	Permanganate		Ammonium
Cation			Hydronium
	Ferric		Mercury(1)
	Mercuric		Cuprous
	Cupric		

FILL IN THE MISSING NAME OF THE COMPOUNDS

Formula	Name	Formula	Name
-1 Anion		**-2 Anion**	
CN^-		$SO_4{}^{2-}$	
SCN^-		$C_2O_4{}^{2-}$	
OH^-		$CrO_4{}^{2-}$	
$NO_3{}^-$		$Cr_2O_7{}^{2-}$	
$NO_2{}^-$		$CO_3{}^{2-}$	
$MnO_4{}^-$		$SO_3{}^{2-}$	
$ClO_4{}^-$		**-3 Anion**	
$ClO_3{}^-$		$PO_4{}^{3-}$	
$ClO_2{}^-$		$PO_3{}^{3-}$	
ClO^-		$AsO_4{}^{3-}$	
OCl^-			
$HCO_3{}^-$			
$HSO_4{}^-$			
CH_3COO^-			
+1 Cation			
$NH_4{}^+$			
H_3O^+			
+2 Cation			
$Hg_2{}^{2+}$			

BIOLOGY
Q1. Draft an appeal to your community regarding the spread of COVID 19, its symptoms and
preventions
Q2. Write about the common agricultural crops, types of soil, weeds and pests found in Aligarh.
You can search through different sources available on internet.

CLASS: X

ENGLISH
1. Listen to the BBC and CNN news every day to enhance your pronunciation. Also try to compare
the news given by these two channels. (Listen every day even if you don't understand)
2. Read short stories by O Henry, Adventures of Sherlock Holmes by Sir Arthur Conan Doyle and
Oliver Twist by Charles Dickens. Mark the difficult words and note them down in a notebook.
3. Read loudly for at least thirty minutes every day. (Improve your reading skill)
4. Write the summary of all the stories that you read.

NOTE: All the books and reading material is available on the Google Book app.

COMPUTER

1. Create a Word document on Computer Languages.
2. Make a list of the latest networking devices communication media and their uses.
3. Prepare a report on Operating System. Mention commonly used Computer Operating
System and Mobile Operating System with their latest versions.
4. Collect the information on Guided and Unguided Media. After collecting the information
make a project to represent the topic.
5. List Keyboarding tips and rules.
6. Create a Birthday Card of your best friend using WordArt, Clipart and Shapes.
7. Prepare a tabular data in Microsoft Excel with all the shortcut keys which can be used in
Excel.
8. Prepare a chart based on the data of your monthly expenses.
9. Prepare a Chat on Computer Lab Rules.
10. Collect information on some Educational Robots.

MATHS

Note: Attempt all the questions.
1. Show that $\frac{1}{2}$ is a zero of the polynomial $2x^2 + 7x - 4$.
2. Find the zeroes of the polynomial $x^2 + 4x + 3$ and verify the relationship   between the
zeroes and the coefficients.
3. Find the zeroes of cubic polynomial $x^3 + 6x^2 + 11x + 6$.
4. If 2 is a zero of the polynomial $x^3 - 3x^2 + 4x + 2k$, find the value of k.
5. Find the Quadratic polynomial for which sum and product of its zeroes are 4 and 1
respectively.
6. Find the Quadratic polynomial whose zeroes are – 6 and $\frac{-7}{3}$.
7. Write the sum and product of the zeroes of the polynomial $2x^2 - 5x - 3$
8. Divide $p(x) = x^3 - 3x^2 + 5x - 3$ by $g(x) = x^2 - 2$ and write the quotient and remainder.
9. Divide $p(x) = x^3 - 2x^2 + x - 2$ by $g(x) = x + 1$ and verify the Division Algorithm.
10. Find all the zeroes of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$, if two of its zeroes are
2 and – 2.

SOCIAL SCIENCE

Note-Students are advised to do the following questions.
1. Why is Disaster Management important?
2. Define in your own words about NDMA (National Disaster Management Authority) of India.
3. What are the Initiatives taken and Facilities provided by the Central Government of India during Corona Virus (Covid-19) Pandemic?
4. On an outline map of India mark-
   ➢ Major types of Soil
   ➢ Major Dams
   ➢ Rice and Wheat producing area
   ➢ Major Coal Mines and Oil Fields
   ➢ Major Nuclear Power Plant
   ➢ Major National Highways
5. Explain the land use pattern in India.
6. Explain any three human activities which are mainly responsible for land degradation in India.
7. Why power sharing is desirable?
8. What are the different forms of power sharing in modern democracies?
9. Explain the term Napoleonic Code.
10. What steps did the French Revolutionaries take to create a sense of collective identity among the French peoples?

PHYSICS

1. Sketch the ray diagram of the image formation by mirror and lens at different positions of the object.
2. Explain the concept of optical phenomenon (reflection, refraction and dispersion of light) with their causes.
3. Define the following terms-
(a) Mirror
(b) Prism
(c) Lens
(d) Principle focus
(e) Optical centre and pole.
(f) Ray of light, Incident ray, Reflected ray, Refracted ray, and Emergent ray.
(g) Angle of incidence, Angle of reflection, Angle of refraction, Angle of emergence and Angle of deviation.
4. Mention the concept of linear magnification, power of lens, spectrum, uses of mirror and application of atmospheric pressure.
5. Keep in memory the following symbols with their meaning :
u=object distance
v=image distance
r=radius of curvature
p=power of lens
h=height of object
h'=height of an image
m=magnification
f=focal length

CHEMISTRY

1. What do you mean by chemical reaction? Give at least four examples of chemical reactions that you observe in your day to day life.
2. Write any two observation when magnesium ribbon is burnt in air.
3. How do you come to know that a chemical reaction has taken place?
4. Give one example of each of a chemical reaction characterized by :
   i. Evolution of gas
   ii. Change in colour
   iii. Formation of precipitate
   iv. Change in temperature
   v. Change in state.
5. Define the terms
   (a) Word equation
   (b) Reactant
   (c) Product
6. What is a balance chemical equation? Why should a chemical equation be balanced?
7. Write Chemical formula of the following compounds;
   (a) Ferric chloride   (b) Sodium sulphate
   (c) Copper (II) chloride   (d) Silver chloride
   (e) Ferric oxide   (f) lead oxide
   (g) Calcium hydroxide   (h) Silver bromide
   (i) Zinc sulphate.   (j) Potassium nitrate

BIOLOGY

1. Name the process required for the maintenance of life.
2. What is the role of following in digestion?
   a)Trypsin   b) HCl   c)Bile   d) Intestinal Juice
3. Name the type of respiration in which the end products are:
   a) Ethyl Alcohol   b) CO_2 and H_2O c) Lactic Acid
   Give one example of each case where such respiration can occur.
4. Name the substances present in gastric juice. Explain their function.
5. Where is bile secreted from? What is its function?
6. Give one word for:
   a) getting rid of undigested waste from body
   b) movement of food molecules into blood
7. Which of the organs performs the following functions in humans?
   a) Absorption of food   b) Absorption of water
8. Write one feature which is common to each of the following
   a) Glycogen and Starch   b) Chlorophyll and hemoglobin
9. How would the digestion of proteins and carbohydrates be effected if there was a blockade in the bile duct?
10. Which fluid in the human body wets the internal organs?

CLASS-XII

ENGLISH
1. Listen to the BBC and CNN news every day to enhance your pronunciation. Also try to compare the news given by these two channels. (Listen everyday even if you don't understand)
2. Suggested Reading.
   a. The Gulsitan of Saadi. (It has many anecdotes and fables and are very interesting)
   b. Biography of Abraham Lincoln.
   c. Novels by Charles Dickens. (preferably *Hard Times* and *Great Expectations*)
   d. Abridged Shakespearian Plays.
   e. Short Stories by O Henry.
3. Read loudly for at least thirty minutes every day. (Improve your reading skill)
4. Write the summary of all the stories that you read.
5. Try to narrate the stories and discuss with your friends.

Note. All the books and reading material is available on the Google Book app.

PHYSICS
1. A block of mass 10kg, moving in X direction with a constant speed of 10m/s, is subjected to a retarding force F=0.1j/m during its travel from x=20m to 30m. Its KE will be
    (A) 450J   (B) 275J   (C) 250J   (D) 475J
2. A time dependent force F=6 t acts on a particle of mass 1 kg. If the particle starts from rest, the work done by the force during the first 1 sec. Will be
    (A) 9J   (B) 18J (C) 4.5J   (D) 22J
3. A man in a ballon rising vertically with an acceleration of 4.9meter per second square release a ball 2 second after the ballon is let go from the ground. The greatest height above the ground reached by the ball is
    (A) 9.8m   (B) 14.7m   (C) 19.6m   (D) 24.5m.
4. A force of 10N gives a mass m1, an acceleration of 10meter per second square and mass m2, an acceleration would it gave if both the masses are tied together?
5. A machine guns a fires a bullet of mass 40g with a speed of 1200 m/s. The person holding the gun can exert a maximum force of 144N on it. What is the number of bullets that can be fired/sec from the gun?
6. At what height above the earth's surface does the force of gravity decrease by 1%? The radius of the earth is 6400km.
7. If the radius of the earth shrinks by 2.5%, mass remaining constant, then how would the value of acceleration due to gravity change?
8. The heart of a man pumps 5 litres of blood through the arteries per minute at a pressure of 150mm of the mercury. If the density of mercury be 13.6x10 di power 3 kg/meter cube and g=10m/second square the the power of heart on watt is
    (A) 1.50   (B) 1.70   (C) 2.35   (D) 3.0
9. If the length of a second's pendulum is increased by 1 %, how many seconds will it loss or gain in a day?
10. Two pendulums od length 200 cm and 220.50 cm start oscillating in phase. After how many oscillations will they be in same phase for the first time?

CHEMISTRY

> Make a glossary of the following terms in an assignment diary prepared by using left over pages of your old note books.

1. absorption
2. acid-base titrations
3. activated complex
4. activation energy
5. aliphatic compounds
6. beta particle
7. binary compounds
8. bond enthalpy
9. capillary action
10. calcination
11. co-ordination number
12. effervescence
13. electrochemical cell
14. electrolytic cell
15 electronegativity
16. emulsion
17. enthalpy
18. free radical
19. functional group
20. Gibbs free energy
21. glycosidic bond
22. half life
23. hygroscopic
24. ideal gas
25. inductive effect
26. iso-electronic
27. ligand
28. limiting reactant
29. miscible
30. molarity
31. normality
32. neucleophile
33. oxidation
34. occlusion
35. osmosis
36. paramagnetic
37. partial pressure
38. quantum
39. qualitative analysis
40. radio active
41. resonance
42. roasting
43. saturated
44. sigma bond
45. sol
46. spontaneous process
47. standard solution
48. stoichiometry
49. titrant
50. universal gas constant
51. valence
52. viscosity
53. volatile
54. water of crystallization
55. water of hydration
56. X-rays
57. yield
58. zaitsev rule
59. zeta potential
60. zwitter ion

BIOLOGY

Q1. a. Make a poster or chart showing well defined structure of Corona virus along with its biological classification.

b. How it could be compared to SARS and MERS? Also explain whether warmer weather in northern hemisphere will have any impact on its transmission?

c. Can MERS and SARS tell us anything about how new corona virus pandemic might develop?

Q2. What is Gene therapy? How it could be helpful to mankind?

Q3. Write about global warming and correlate its effects to Environmental issues.

MATHEMATICS

WORKSHEET 1- TRIGONOMETRY

Q.1	If $\tan A = \sqrt{3}$, then what is $\tan 2A$?
Q.2	Solve : $2\cos^2 x + 3\sin x = 0$
Q.3	Evaluate : $\sin(40°+\theta)\cos(10°+\theta) - \cos(40°+\theta)\sin(10°+\theta)$
Q.4	Prove that $\cot x \cot 2x - \cot 2x \cot 3x - \cot 3x \cot x = 1$.
Q.5	Find the value of $\sin 150° + \cos 300°$.
Q.6	If in two circles, arcs of the same length subtend angles 75° and 120° at the centre, find the ratio of their radii.
Q.7	If in two circles, arcs of same length, subtend angles 120° and 150° at the centre, find the ratio of theirradii.
Q.8	Write the value of $\tan 15°$.
Q.9	Prove that : $$(\cos x + \cos y)^2 + (\sin x - \sin y)^2 = 4\cos^2 \frac{x+y}{2}$$
Q.10	Find the value of $\cos 55° + \cos 125° + \cos 300°$.
Q.11	Find the value of $\sin 15°$.
Q.12	Prove that: $(\sin 3x + \sin x)\sin x + (\cos 3x - \cos x)\cos x = 0$.
Q.13	A wheel makes 360 revolutions in one minute. Through how many radians does it turn in one second?
Q.14	Prove that $$\frac{\cos 19° - \sin 19°}{\cos 19° + \sin 19°} = \cot 74°$$
Q.15	If $\cot 2A = \tan(90 - 2A,)$ then what is A?

WORKSHEET 2– CONIC SECTIONS

Q.1   Find the coordinates of the foci, the vertices, the length of major axis, the minor axis, the eccentricity and the length of the latus rectum of theellipse $\dfrac{x^2}{16} + \dfrac{y^2}{9} = 1$.

Q.2   If a parabolic reflector is 20 cm in diameter and 5 cm deep, findthefocus.

Q.3   Find the equation of the parabola with vertex (0,0), passing through the point (4,5) and symmetric about the x-axis.

Q.4   Find the equation of the circle which passes though the points (3,7), (5,5) and has its centre on the line x - 4y=1.

Q.5   Find the equation of the circle which passes through the points (2, –2), and (3, 4) and whose centre lies on the line $x + y$=2.

Q.6   Examine whether the points (2,3) lies inside, outside or on the circle $x^2 + y^2 + 2x + 2y - 7 = 0$.

Q.7   Find the equation of the hyperbola satisfying the give conditions: Vertices (0, ±3), foci(0,±5).

Q.8   Find the coordinates of the foci, the vertices, the length of major axis, the minor axis, the eccentricity and the length of the latus rectum of theellipse $\dfrac{x^2}{25} + \dfrac{y^2}{100} = 1$.

Q.9   Find the centre and radius of the circle : $x^2 + y^2 - 8x + 10y - 12 = 0$

Q.10   Find the equation of the hyperbola satisfying the give conditions: Foci (±4, 0), the latus rectum is oflength12.

Q.11   Find the equation of the circle with centre (–a, –b) andradius $\sqrt{a^2 - b^2}$.

Q.12   Find the equation of a circle with centre (2, 2) and passes through the point(4,5).

Q.13   An equilateral triangle is inscribed in the parabola $y^2 = 4ax$, where one vertex is at the vertex of the parabola. Find the length of the side ofthetriangle.

Q.14   Find the equation of the parabola that satisfies the following conditions: Vertex (0, 0) passing through (2, 3) and axis isalongx-axis.

Q.15   Find the radius of the circle $x^2 + y^2 - 4x + 2y + 1 = 0$.

Q.16   Find the equation of the ellipse that satisfies given conditions:Vertices(±6, 0), foci(±4,0).

Q.17   Find the equation of the circle with radius 5 whose centre lies on x-axis and passes through the point (2,3).

Q.18   Find the equation of the circle with centre at (-3, 2) andradius4.

Q.19   Find the equation for the ellipse that satisfies the given conditions: Major axis on the x-axis and passes through the points (4, 3) and(6,2).

Q.20   Find the equation of the parabola with focus (5, 0) and directrix$x$=-5.