

**ARMY PUBLIC SCHOOL, CHANDIMANDIR**  
**SESSION: 2020-21**  
**HOLIDAYS HOMEWORK**  
**CLASS- IX**

### **English**

1. Read an English book/novel, preferably a classic. You can access online e-books. Write the following after reading the book-

- Why did you choose the book / novel?
- Major characters in the book/novel and their character sketches.
- Synopsis/summary of the story in your own words.
- You can read the books of the following authors:

Satyajit Ray, Sudha Murthy, APJ Abdul Kalam, Mark Twain, Guy Dr Maupassant.

2. Write an article in 120 words on the topic: My experience about the virtual classes during COVID-19 lockdown period.

3. Revise and learn the syllabus of English done till date.

### **Hindi**

1. शब्द और पद में अंतर स्पष्ट करें।
2. अनुस्वार और अनुनासिक की परिभाषा व दस - दस उदाहरण लिखें।
3. उपसर्ग और प्रत्ययों, श्रुतिसमसम भिन्नार्थक शब्द, पर्यायवाची, विलोम शब्द के 20-20 उदाहरण लिखें व याद करें।  
उपरोक्त विषयों को क्रमानुसार उत्तर पुस्तिका में लिखें व याद करें।
4. पाँच स्वरचित लघु कथाओं को उत्तर पुस्तिका में लिखें।
5. करोना वायरस महामारी से बचाव संबंधी एक विज्ञापन और पाँच सलोगन लिखें।
6. करोना महामारी के प्रकोप से स्कूल न खुलने की स्थिति में आयोजित आनलाइन कक्षाओं के अपने अनुभवों को दादा दादी से पत्र लिखकर साँझा करें।
7. यदि आप अध्यापक होते तो ऐसी विकट स्थिति में बच्चों की शिक्षा के लिए क्या प्रबंध करते- अनुच्छेद रूप में लिखे।

### **Maths**

1. Draw the square root spiral and colour it with different colours for each square root.
2. Use your creativity to draw real numbers chart. Explaining different types of real numbers and their properties.
3. Draw comparative charts depicting total number of Corona Virus cases and the number of recoveries in the same graph for different weeks of April and May. You can use bar graph or line graph.
4. Revise solved examples Chapters 1 to 4.
5. Revise the exercises Chapters 1 to 4 discussed during online classes.

### **Science**

#### **Physics:**

1. Prepare a report on the life and works of five famous Indian Physicists (At least 200 words for each).
2. Construct a working model with innovative ideas on any topic of your choice related to Science.
3. Practice the solved numericals of the chapter-8 (Motion) given as examples (8.1 -8.7) through the Chapter.
4. Draw the following graphs on the graph papers and paste them in holiday homework notebook;

- ★ Distance-time graphs for
- i) The object at rest.
  - ii) The data given in table 8.4 of activity 8.9 (pg 106)
  - iii) The data given in table 8.5 of activity 8.10(pg 107).

- ★ Velocity-time graphs for
- The object in uniform motion (Zero acceleration).
  - The object in uniformly -accelerated motion.
  - The object in non-uniformly accelerated motion.

## **BIOLOGY**

1. Consider a cell like your school. Each part of the cell (school) has responsibilities that must be done and certain organelles (people) to do them. Identify the functions of the following parts of the cell then identify which person does the same job.

First one is done as an example to follow:

S. N.	ORGANELLE	FUNCTION	Part of School that has a similar function
1.	Cell Membrane	Controls what goes in and out of the cell	Front office
2.	Mitochondria		
3.	Nucleus		
4.	Ribosome		
5.	Cytoplasm		
6.	Golgi Body		
7.	Cell Wall (only in plant cell)		

**2. Activity:** Carry out osmosis phenomenon using potatoes

**Procedure:**

- Take three peeled potato halves and scoos each one out to make a potato cups A, B and C.
  - Take one peeled, boiled potato half and scoos it to make potato cup D.
  - Keep unboiled potato cup A empty.
  - Put unboiled potato cup B into a beaker containing water.
  - Put one teaspoon sugar/salt in unboiled potato cup C after keeping in water for 2 hours, and
  - Put one teaspoon sugar in the boiled potato cup D
  - Keep all these four cups for 2 hours and then observe changes in them.
- Record your observations in all the four cups and draw conclusion.

## **A Deep Look into the Biology and Evolution of COVID-19**

A new Corona Virus has infected many people since December 2019. As it rapidly spreads across the planet, scientists and public-health experts are racing to limit the share of people it infects. To do that, they need to understand the new virus. It's called severe acute respiratory syndrome Corona Virus 2, or SARS-CoV-2. Many questions remain unanswered about this new virus. Fortunately, details are starting to surface.

### **Answer the following questions**

- What is the anatomy of Virus?
- How deadly it is?
- Why it is called as Corona Virus?
- How does it reproduce so quickly once it is inside us?
- Make a poster on Corona Virus preventive measures (A4 sheet)

## **CHEMISTRY**

1. Prepare a project report by identify (a) a mixture, (b) a compound, (c) an element [metal and non metal], (2 of each category) from your surrounding and highlight the main characteristics features of elements, compounds & mixtures.

- Revise and learn the syllabus done till date.
- The holiday home work has to be done in separate notebook.

## **Social Science**

- Make a project on COVID-19: A MAN MADE DISASTER OR A NATURAL DISASTER.(Use some analytical studies) .. Hint.. reference to reaction of the USA and Japan can be given. Preparedness programme of Indian Govt. to reduce the risk of it on Human life to be mentioned
- On the outline map of World indicate at least 5 nations which are severely hit by COVID -19. Describe the role of WHO at a world level.

3. Impact of Covid 19 on society, polity and on economy in future at a global level.(write at least 120 words while using your thinking ability.
4. Write the questions and answers of Lesson 2 of Geography (Physical Features of India) in your notebook.

## **IT Vocational**

1. Learn and Write all the Question/Answers of Unit 4 (Subject Skills)- "Managing Workplace Safety" and Unit 1(Employability Skills)- "Communication Skills" in your Notebook.
2. Make a Collage on A4 Sheet on the topic
  - (a) Application Areas of IT  
OR
  - (b) Describe how technology has proved to be helpful and useful to students during the lockdown period.
3. Write a note in your note book on the following topic.
  - a) How did technology help you fight (COVID-19) pandemic?

**\*Note:** Students will do holiday homework of each subject in a separate note book (50 Pages).