



# ACADEMIC WORLD SCHOOL<sup>TM</sup>

## BEMETARA

### SESSION: 2022-23

### SUMMER VACATION ASSIGNMENT

### CLASS: IX

#### **General Instructions:**

1. Write in a clear and legible handwriting.
2. Complete all the homework in a separate subject Summer Vacation Homework Notebook.
3. **DO NOT COPY AND PASTE FROM THE INTERNET.** (Assignment will be rejected)
4. In case of reference from the internet, you may:
  - A. Read the content from the internet, if you wish and paraphrase (Rewrite in your own words)
  - B. Mention the source of your information by providing the link from the internet for the verification by the teachers.
5. Marks awarded will be counted in the final scores at the end of the session.
6. The Summer Vacation HW will be submitted immediately upon arrival to school after Summer Vacation.
7. For any assignment related query do post your question on E-Mail Id of respective subject teacher. List of Subject Teacher's E-Mail ID attached.

#### **Note for the Parents:**

**Parents are requested to guide his/her wards to complete their assignments honestly and submit by the due date.**

**P.T.O**

## **ENGLISH**

### **General Instructions:**

1. Attempt all the questions as per the instructions.
2. Do not exceed the word limits.
3. Make a separate copy for English holiday homework.

### **1) Listening: Listen to any four books written by Ruskin Bond and write your review on each.**

**You must discuss the review on the following points/elements:**

- Title
- Characters
- Genre (romantic, historical, detective, thriller, adventure, horror, science fiction etc.)
- Setting (when and where the story takes place, and physical environment, time of day) (20 words)
- Plot (100-120 words)
- Theme (20-30 words)
- Whom did you like most in the story and why? (50 words)
- What happened at the end and how did you feel? (80 words)
- If you were given a chance to play the role in the same story, whose role would you like to perform and why?
- How would you replace the ending of the stories? (80 words)

❖ **All stories are free to stream on your desktop, laptop, phone or tablet using the following link : <https://stories.audible.com/start-listen>**

### **2) Art Integrated Activity:**

**(a) Prepare an interview (3-4 minutes) with the person you like most in your family on the following points:**

- Their name and education
- When did they begin their elementary education in school?
- How did they go to school?
- What facilities were provided to them?
- What were the criteria to get through the exams when they were in class 10<sup>TH</sup> ?
- Who were their favorite teachers and why?
- What did they do to get through in class 10<sup>th</sup> ?
- How did they enjoy their time while in the school?
- What did they do when they lost their study materials? How did they manage?
- What do they feel about the current education system during this pandemic?
- How do they compare the current education system with past education system? Which is better according to them?

**(b) Enactment: Topic: Health, Hygiene and Cleanliness**

**(Duration: 2 minutes)**

- We have seen in the recent past that people faced lots of problems due to a lack of immunity. Write an article on Immune System by mentioning the importance of health, hygiene and cleanliness.

*Take care of the Following Points:*

- a) Introduce the topic properly*
- b) Explain the topic with the help of facts and pictures published in magazines/newspapers*
- c) Conclude the topic with your own composition in the form of poetry based on the topic*

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**विषय-हिंदी**

**सामान्य निर्देश :**

1. समस्त कार्य आंतरिक मूल्यांकन के अंतर्गत आकलन किया जाएगा।
2. समस्त कार्य आकर्षक सृजनात्मक और प्रस्तुति योग्य होना चाहिए।
3. समस्त कार्य का अंक परीक्षा में जोड़े जाएंगे।

प्रश्न 1. ग्रीष्मकाल में आपने अपने समय का सदुपयोग किस प्रकार किया अपने शब्दों में लिखिए।

प्रश्न 2. “गिल्लू” पाठ से प्रेरित होकर ‘पशु प्रेम’ से संबंधित विषय पर लगभग 150 शब्दों का अनुच्छेद लिखिए।

प्रश्न 3. ‘दुःख का अधिकार’ पाठ के आधार पर भगवाना की माँ का चरित्र-चित्रण कीजिए।

प्रश्न 4. गर्मी की छुट्टी में कश्मीर यात्रा में जाने के लिए प्रेरित करने हेतु पत्र लिखें।

प्रश्न 5. ग्रीष्मकाल के दौरान आपके द्वारा की गयी यात्रा का लगभग 200 शब्दों में वर्णन कीजिये।

प्रश्न 6. ‘मेरे जीवन का लक्ष्य’ विषय पर लगभग 150 शब्दों में अनुच्छेद लिखिए।

प्रश्न 7. अपने घर अथवा पड़ोस के किसी व्यक्ति द्वारा कोरोना महामारी के दौरान किए गए कार्य पर जानकारी प्राप्त करने हेतु एक साक्षात्कार लिजिए।

प्रश्न 8. अपनी एक स्वरचित कविता लिखिए।

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## SUBJECT- MATHEMATICS

### General Instructions (if any)

1. Attached assignments are based upon the lectures taken by the teachers before summer vacations.
2. This assignment is part of internal assessment of Periodic Test 1.
3. Solve all these questions in a separate note book.
5. Use Mathematics Lab Notebook for completing the Art Integrated Activity.

### **SECTION- A** **Number System (MCQ)**

1. From the choices given below mark the co-prime numbers:  
(a) 2, 3                      (b) 2, 4                      (c) 2, 6                      (d) 2, 110
2. A rational number equivalent to  $\frac{5}{7}$  is:  
(a)  $\frac{15}{17}$                       (b)  $\frac{25}{27}$                       (c)  $\frac{10}{14}$                       (d)  $\frac{10}{27}$
3. An example of a whole number is:  
(a) 0                              (b)  $-\frac{1}{2}$                               (c)  $\frac{11}{5}$                               (d)  $-7$
4. Given a rational number  $-\frac{5}{9}$  this rational number can also be known as  
(a) a natural number      (b) a whole number                      (c) a fraction                      (d) a real number
5. The rational number  $0.\overline{3}$  can also be written as  
(a) 0.3                              (b)  $\frac{3}{10}$                               (c) 0.33                              (d)  $\frac{1}{3}$
6. If the decimal representation of a number is non-terminating, non-repeating then the number is  
(a) a natural number      (b) a rational number (c) a whole number      (d) an irrational number
7. The square root of which number is rational  
(a) 7                              (b) 1.96                              (c) 0.04                              (d) 13
8. A rational number between  $\frac{1}{7}$  and  $\frac{2}{7}$  is  
(a)  $\frac{1}{14}$                               (b)  $\frac{2}{21}$                               (c)  $\frac{5}{14}$                               (d)  $\frac{5}{21}$
9. The number 1.101001000100001... is  
(a) a natural number      (b) a whole number      (c) a rational number      (d) an irrational number
10. Which of the following is a rational number?  
(a)  $\sqrt{63}$                               (b)  $\sqrt{250}$                               (c)  $\sqrt{1681}$                               (d)  $\sqrt{123}$

**SECTION- B**  
**Number System (Subjective)**

1. Find two rational numbers between 0.1 and 0.3
2. Express  $3\frac{1}{8}$  in the form of decimal.
3. Express  $0.\overline{245}$  as a fraction in the simplest form.
4. Find five rational numbers between  $\frac{3}{7}$  and  $\frac{4}{7}$ .
5. Find six rational numbers between 2 and 5.
6. Show how  $\sqrt{10}$  and  $\sqrt{5}$  can be represented on the number line.
7. Find three different irrational numbers between the rational numbers  $\sqrt{2}$  and  $\sqrt{5}$ .
8. Write five numbers whose decimal expansions are non-terminating non-recurring.

**SECTION- C**

**Art Integrated Activity:** Construct the square root spiral in Mathematics Lab Notebook.  
**(Refer to NCERT Class-IX Chapter 01)**

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**SCIENCE**

**General Instructions**

1. This Assignment is divided in two parts A and B
2. PART A \*Art Integrated Project\* to be done in a scrap book
3. PART B Do in stick file and chart paper or in white A4 page as per instructions.

**PART A**

**\*Art Integrated Project\***

To prepare a Scrap book on Musical instruments of Gujarat and Chhattisgarh (Scientific principles involved in it).

**Task to be accomplished:-**

1. Designing of out-look of scrap book
2. Collect the pictures and name of musical instruments (state wise)
3. Basic principles involved in different musical instruments
4. Area belongs to musical instrument
5. Conclusion

**OR**

Study of Biodiversity of Gujarat and Chhattisgarh using paintings, chart paper and drawing on following factors:-

- a) Ecosystem
- b) Endangered species
- c) Flora and Fauna
- d) Food chain

**Task to be accomplished:-**

1. About the food chains and the ecosystems.
2. Flora and Fauna
3. Endangered, Vulnerable and extinct species

**PART B**

**To be done in stick file/chart paper/in white A4 page (as per specific instructions)**

## PHYSICS

1. Write three differences between distance and displacement.
2. Mention 3 examples around you where you notice rest and motion, depict with pictures.
3. Define velocity and explain how velocity and speed are two different physical quantities
4. Draw graphs for a moving body when:-
  - i) Speed of body remains constant
  - ii) Speed of body changes at uniform rate
  - iii) Speed of body changes in a non-uniform manner
5. What is uniform circular motion? Give 5 examples for uniform circular motion with pictorial representation.
6. Collect pictures of articles which have streamline shape. Explain how streamline shape the motion of different vehicles.
7. A cyclist goes around a circular track once every 2 minutes, if the radius of the circular track is 105 meters, calculate his speed
8. A train travelling at  $20 \text{ ms}^{-1}$  accelerates at  $0.5 \text{ ms}^{-2}$  for 30 s. How far will it travel in this time?
9. A bus running at a speed of 18 Km/h is stopped in 2.5 seconds by applying brakes. Calculate the retardation produced.
10. Ajay while driving to school computes the average speed for his trip to be  $20 \text{ kmh}^{-1}$ . On his return trip along the same route, there is less traffic and the average speed is  $30 \text{ kmh}^{-1}$ . What is the average speed for Ajay's trip?

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## BIOLOGY

### 1. Questionnaire framing:-

\*Expect from you:-

#### a) How to do:-

Read the Lesson-5 [NCERT] Science, Class-9, "The fundamental unit of life" page 57 to 65 carefully.

#### b) What to do:-

- i) Prepare 10 different types of multiple choice questions with answers.
  - ii) Draw the diagrams of the followings and write their role in our body.
    - a) Nerve cells
    - b) Blood cells
    - c) Sperm cells
2. Write your own opinion to justify the statements-
    - i) "Healthy food develops a healthy mind"
    - ii) "Cell is known as structural and functional unit of a living body."
  3. Draw a 'Mind map' of the topic, 'The cell'
    - i) Where to do: Use A-4 Size sheet.
    - ii) Parameters- Accuracy, content and quality.
  4. Prepare a word puzzle games on the above topic.

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## **CHEMISTRY**

### 1. Questionnaire making:-

\*Expectations from you:-

#### a) How to do: -

Read the Lesson-1 [NCERT] Science, Class-9, “Matter in our surroundings” Page number 1 to 5 carefully.

#### b) What to do:-

i) Prepare 10 multiple choice questions with answers.

ii) Draw the diagrams of the following processes.

a. Effect of pressure on gas

b. Particles of matter have spaces between them

c. Liquid takes shape of the container

### 2. Write your own opinion to justify the statements-

a. “Sponge is solid but compressible”

b. Oxygen is more in atmosphere but goes on decreasing as we go higher in space, why?

### 3. Draw a ‘colourful Mind map’ of the topic, ‘States of matter-our world ’

a) Where to do: - Use A-4 Size sheet.

b) Parameters- Accuracy, Creativity and quality.

### 4. Prepare a brief report with diagram about Plasma and Bose Einstein Condensate states of matter.

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## **SOCIAL SCIENCE**

### **ART INTEGRATED PROJECT (GUJARAT / CHATTISGARH)**

**TOPIC: FLORA AND FAUNA OF GUJARAT (GIR FOREST OR ANY OTHER FOREST) AND FLORA AND FAUNA OF ANY FOREST OF CHATTISGARH**

#### **Things to be kept in mind while doing this project:**

- Use A-4 size files paper (one side ruled).
- For headings and subheadings use sketch pen.
- Project must be handwritten (use blue/black ink only)
- Design the cover page which should reflect the topic. (use your creativity)
- Mention the Topic of the project, Name, class & section and roll No. on the cover page in bold letters.
- Project can be in your writing in project file
- Avoid using plastic covers and use ecofriendly materials.
- Use drawings, charts, pictures, newspaper cuttings to make your project look colorful, attractive, useful and presentable.

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# ARTIFICIAL INTELLIGENCE

## General Instruction:

1. Attempt all the questions as per the instructions
2. Create PPT and send it to the respective subject teacher via e-mail.

*Let us create an interactive story practically, based on the steps listed in below inbox.*

### **My Smart Home Interactive Story**

We are giving below an interactive story created via Microsoft PowerPoint. The text on the slides is shown normally. The link/action buttons in bold and the instructions for story creator are shown in colour. The text of an instruction will not appear on the slide, rather the story-creator should act as per the instruction and take necessary actions(s).

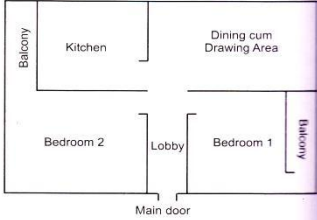
**Note:** It is a 2BHK house with 2 bedrooms, kitchen, a dining hall, a drawing room and a small lobby.

Slide 0 Title of the story :

**My Smart Home**

**Note**  
It is a 2BHK house with 2 bedrooms, kitchen, a dining hall, a drawing room and a small lobby.

Slide 1 **The House Floor Plan**  
Illustration shown on the right



Slide 2 **Enter My House**  
My house is situated in a calm area of our city and has a beautiful main door.  
Main Door. (link to slide 3)

Slide 3 **Verifying Entry**  
■ The main door has a Smart Lock that can take a passcode (through keyboard or through voice) or can verify you if you have a valid card.  
(Image of a **Smart Lock** and a robotic-sound file for, 'Please tell or enter your passcode or show your card')  
**Valid Passcode/card** (link to slide 4)  
**Invalid Passcode/card** (link to slide 12)

Slide 4 **Welcome to My Home (Lobby Area)**  
Through main door you enter into an open lobby.  
The house has one bedroom on the right of lobby, kitchen on the left of dining area, dining cum drawing hall in front and second bedroom on the left of the lobby.

Four arrows, each linking to an area of the house with smart features of the room.

Link (To Dining cum Drawing Hall) / Slide 7

Link (To Bedroom 2) / Slide 9

Link (To Bedroom 1 / Slide 5)

Link (Exit through main door) / Slide 11

Slide 5 **Bedroom 1**  
■ The lights switch on automatically when you enter the room. Smart blinds open if it is daytime and the natural light is too low.  
■ The room also has smart heating and cooling depending upon the season.  
Link (Back to open lobby) / Slide 4

Slide 6 **Balcony of Bedroom 1**  
The balcony of bedroom 1 has seating of 3-4 people with planters on the wall and fairy lights around them.  
■ The Smart Speakers of balcony automatically start playing lovely soothing melodies whenever someone goes to sit there.  
Link (Back to bedroom1) / Slide 5

Slide 7 **Dining cum Drawing Hall**  
■ The Dining cum Drawing Area has Smart Lights and Smart blinds. It also has Smart Air Monitor which keeps monitoring the air purity.  
Link (Kitchen) / Slide 8

Slide 8 **Kitchen**  
■ The kitchen of my smart home is a smart kitchen with Smart Cooking Range, Smart Refrigerator, Smart Microwave, Smart Oven etc., which all can respond to voice command and take intelligent decisions.  
Link (Back to Dining Area) / Slide 7

Slide 9 **Bedroom 2**  
■ The lights switch on automatically when you enter the room. Smart blinds open if it is daytime and the natural light is too low.  
■ The room also has smart heating and cooling depending upon the season.  
Link (Back to balcony) / Slide 10

### Slide 10 **Balcony of Bedroom 2**

The balcony of bedroom 2 has seating of 3-4 people with plants kept here and fairy lights around them.

- The Smart Speakers of balcony automatically start playing lovely soothing melodies whenever someone goes to sit there.

Link (Back to bedroom 2) / Slide 10

Slide 11 Thank you for visiting my smart home. Hope you enjoyed the tour.

Slide 12 Your passcode or card is invalid. Please leave fast else the burglar alarm will go off in 7 seconds and the police will be notified.

Scan QR Code



with any  
QR code  
Scanner

### **Note**

You may add more smart home devices and gadgets to this interactive story. You refer to many sites such as :

<http://www.home-designing.com/2016/03/50-insanely-useful-smart-home-products-you-can-buy-right-now>.



**Q2:** Complete the world in 2030 and write a letter to your future self. Be sure to mention things that you think your future self would probably be doing and experiencing in daily life.

Place \_\_\_\_\_

Date \_\_\_\_\_


Dear \_\_\_\_\_,

It feels a little strange to be writing a letter to my future self, but it's also rather exciting!

At present I am very interested in \_\_\_\_\_ and am sure this is a hobby that has proved beneficial and I am now a skilled \_\_\_\_\_.

So tell me have things changed a lot ? Do we still have a lot of \_\_\_\_\_ ?

Has Artificial intelligence proved to be \_\_\_\_\_ ?



You must be so used to \_\_\_\_\_ while we struggle to \_\_\_\_\_

Is our Pet \_\_\_\_\_ doing well or have you replaced it with \_\_\_\_\_ ?

Ha! Ha! It's so much easier, right?

How is your preparation for the new job ?

Must be really nice to be \_\_\_\_\_

Have you changed the \_\_\_\_\_ ?


Am sure things have turned out well for you in 2030. Great \_\_\_\_\_ !

It's been nice writing to you \_\_\_\_\_

Hope this letter brings back old memories...

Sincerely,

\_\_\_\_\_



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S.No.	Teacher's Name	E-Mail ID
1	Dr.S.K. Tiwari	<a href="mailto:shiv.kumartiwari@academicworld.co.in">shiv.kumartiwari@academicworld.co.in</a>
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4	Mr.Ankit Chandrikapure	<a href="mailto:ankit.chandrikapure@academicworld.co.in">ankit.chandrikapure@academicworld.co.in</a>
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14	Mr.Rajat Ahuja	<a href="mailto:rajat.ahuja@academicworld.co.in">rajat.ahuja@academicworld.co.in</a>
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19	Mr.Simarjeet Singh Bhatia	<a href="mailto:simarjeet.singhbhatia@academicworld.co.in">simarjeet.singhbhatia@academicworld.co.in</a>
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