

LK SINGHANIA EDUCATION CENTRE
GOTAN



HOLIDAY ASSIGNMENT

SESSION : 2024-25
CLASS : IX

*“Climb every mountain, ford every stream,
Follow every rainbow, till you find your dream.”*

Dear Students,

Wishing you a happy and blessed summer time!

You are the torch bearers of change. Put in your sincere efforts and do some unique and creative work for the society. The tiny efforts of each soul are the remarks of gratitude to Nature.

The entire team of LKSEC teachers has put all will and might in designing “The Holiday Assignment”, where certain aspects are kept in mind like use of technology, wise use of paper and resources from surroundings. Put your shoulder to the wheel in making the projects creative, attractive and cost effective with appropriate information.

While preparing the assignment, keep in mind following points:

- 1. All the assignments should be original.**
- 2. Use technology wisely and correctly.**
- 3. Values and virtues bring enrichment in bonds among members of the family. So, as a piece of advice, involve your parents in the process.**
- 4. Use poster colours, sketch pens etc.**
- 5. Grammatical accuracy also carries weightage.**
- 6. Sincere and honest efforts will be appreciated.**
- 7. The cover page must include details like student’s name, class and section, subject and name of the teacher it is to be submitted to.**

Make this summer special, innovative and enthralling.

Educationally Yours,

**R C Joshi
Principal**



The only source of knowledge is experience."

Albert Einstein

SUMMER VACATION
HOME WORK
IX SCIENCE

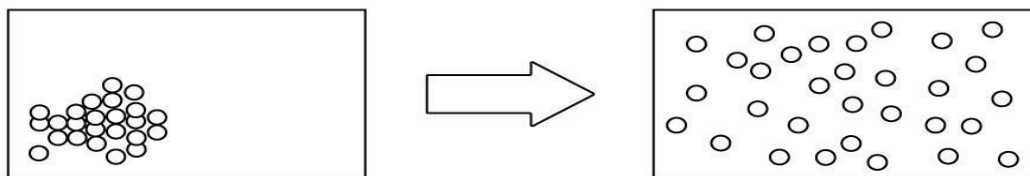
CHEMISTRY

Task I:

Complete the work sheet given below and write or paste in A4 size sheet.

Diffusion Review Worksheet

1 Identify and name the phenomenon in the diagram below.

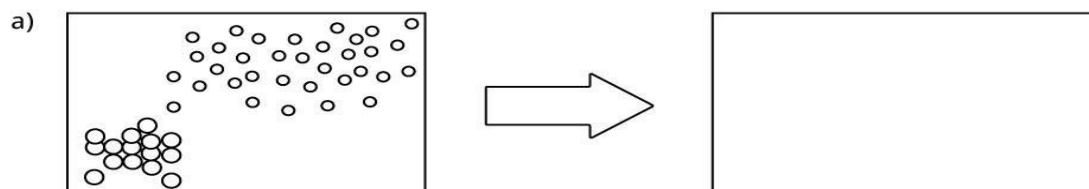


2 Answer the following questions about diffusion and fill in the blanks with the appropriate word(s).

- a) Diffusion is the _____ movement of particles from a region of _____ concentration to a region of _____ concentration until _____ is established.
- b) Give two everyday examples of diffusion.

- c) Diffusion is a type of _____ transport.
- d) Diffusion continues until the concentration of the molecules becomes _____ throughout the region.

3 Draw the result of diffusion on the blank right panel.



Task II:

An element is a pure substance consisting of only one type of atom which all have the same numbers of protons in their nuclei.

These are the first 20 elements, listed in order given below. Learn and write the symbols in A4 size sheet.

- | | |
|--------------------|---------------------|
| 1. H – Hydrogen. | 11. Na – Sodium. |
| 2. He – Helium. | 12. Mg – Magnesium. |
| 3. Li – Lithium. | 13. Al – Aluminium. |
| 4. Be – Beryllium. | 14. Si – Silicon. |
| 5. B – Boron. | 15. P – Phosphorus. |
| 6. C – Carbon. | 16. S – Sulphur. |
| 7. N – Nitrogen. | 17. Cl – Chlorine. |
| 8. O – Oxygen. | 18. Ar – Argon. |
| 9. F – Fluorine. | 19. K – Potassium. |
| 10. Ne – Neon. | 20. Ca – Calcium. |

Task III:

Read the biography of the great Indian Scientist Satyendra Nath Bose. Paste or Draw his picture and write about his contribution in finding fifth state of matter.

PHYSICS

- Task 1:** Explore the biographies of Galileo Galilei and Isaac Newton through reading or watching. Afterward, engage in the following tasks:
- Paste two photographs of both Galileo and Isaac Newton.
 - Document two significant contributions each made to the field of physics.

Task 2: Measure out roughly 50 meters of a straight path in an open area. Run across this distance and note the time it takes to cover it. Calculate your speed in meters per second (m/s). Then, compare your speed to the record set by Usain Bolt in the 100-meter race during the Olympic Games and also the speed of earth you calculated in Activity 3. All comparison should be in m/s. Write down your emotions or thoughts about the comparisons.

Task 3: We know that our earth moves around the sun. Now explore the following two questions based on this phenomenon.

- a) Explain the concept of distance and displacement using the example of movement of earth around the sun.
- b) If the approximate distance traveled by earth around the sun in one year is 1.5×10^{11} m and the time taken 365 days, then calculate the speed at which the earth travels around the sun. Calculate your answers both in m/s and km/h.

BIOLOGY

Task 1:

Create and solve a crossword puzzle of 12 by 12 grids using the topics mentioned below: Cell, cell theory, cell size, cell shape, unicellular and multicellular organisms, division of labour and scientists related to these topics.

Task 2:

Answer the questions based on **HISTORY OF CELLS** and complete the sentences given below.

- 1) _____ are the scientists who study cell.
- 2) Write 3 postulates of cell theory.
- 3) _____ was the first person to see cells.
- 4) _____ are the building blocks of life.
- 5) _____ was the first person to observe the living cells in a drop of pond water.
- 6) The first cells observed were the dead cells in thin slices of__.
- 7) The work of _____, _____ and _____ led to the development of the cell theory.
- 8) Do you believe that the cork which Robert Hooke observed could produce new cells? Explain.

Task 3: There is no relation between the size of an animal and the size of the cell. Justify your answer.

CLASS – IX

SUB – ENGLISH

Vacation Home Assignment

Movie Review: - (To be written in A4 size sheet papers)

- a) Watch the movie "Inside Out".
- b) Write the synopsis of the movie.
- c) Describe all the five emotions shown in the movie-joy, sadness, anger, disgust and fear.
 - ✓ Name of the character (emotion)
 - ✓ Physical appearance.
 - ✓ Role played by the character in the movie.
- d) Which is your favourite character and why?

2. Write a new vocabulary or an idiom based on situations in separate activity notebook or scrap book available.

Note - Watching English news and reading English newspaper must be followed as a daily routine activity.

Class - 9

Sub – Mathematics

1. Solve the following –
 - a. Find the value of $34^2 - 21^2$
 - b. If $a = 5 - 2\sqrt{5}$ then find a^2 .
 - c. Find 5 rational numbers between $4/5$ and $7/5$
 - d. Add $5\sqrt{2} + 4\sqrt{3}$ and $7\sqrt{2} - 6\sqrt{3}$
2. Rationalise the denominators –
 - a. $\frac{5}{2+\sqrt{3}}$
 - b. $\frac{8}{\sqrt{5}-\sqrt{6}}$
3. Write the following cubes in the expanded form –
 - a. $(3a + 4b)^3$
 - b. $(5p - 3q)^3$
4. Factorise –
 - a. $x^3 - 4x - 20$
 - b. $x^3 - 19x + 78$
 - c. $x^3 + 9x + 18$
5. Learn and write algebraic identities.
6. Make a list of laws of exponents.

कक्षा - 09
ग्रीष्मकालीन हिन्दी गृहकार्य - 'मेरा परिवार'

अपने परिवार के किन्हीं चार सदस्यों का साक्षात्कार लेकर उसके आधार पर प्रत्येक के बारे में दस दस वाक्य लिखें ।

Class - IX
Sub - Social Science

Geography Project Work

Topic - Disaster Management

MM-10

Guidelines for the Project

- **Project should be hand written and must be submitted in hard copy (Project File) Containing A4 sheets before 15th July-2024.**
- **Maximum page limit is 10 pages**
- **Paste newspaper cuttings & pictures depicting the Disaster**

GEOGRAPHY



Choose an earthquake-hit area and study the following in that region (preferably recently hit areas)

1. Extent of damage and location of the epicenter.
 2. Areas affected.
 3. Ways of minimizing the damage.
 4. Measures to be adopted to keep the inhabitants and tourists safe.
 5. Guidelines to be followed by the people so that they can prevent losses in the future.
- A. Suggest operations and action plan of a Rescue and Disaster Management Team in disaster-prone areas. Show the probable areas of damage on a map. Also, highlight the kind of infrastructural and structural facilities required in such areas.
- B. What could be the early warning symptoms that could be best used in that area?
- C. How can students play a vital role in creating physically and economically healthier areas?