



Sanskriti KMV SCHOOL

Summer Break Assignments Grade-VIII (2026-27)

"Good habits and strong values nurtured today become the guiding light of a successful and meaningful tomorrow."

"Learn, Care, Share and Grow"

Dear Students,

Summer vacation is not merely a time to relax and rejuvenate; it is also a precious opportunity to explore new experiences, develop essential life skills, and grow into thoughtful and responsible individuals. Keeping this in mind, your Summer Break Assignments have been thoughtfully designed to enhance not only your knowledge but also your moral values and social awareness.

During these holidays, engage yourself in meaningful activities that inspire kindness, responsibility, compassion, and discipline. Learn to:

- * Feed and take care of birds and animals with love and sensitivity.
- * Keep your surroundings neat, clean, and environmentally friendly.
- * Help your parents in daily chores and show respect towards elders.
- * Practice honesty, punctuality, discipline, and responsibility in everyday life.
- * Develop the values of sharing, gratitude, empathy, and kindness towards others.
- * Limit screen time and create opportunities for heartfelt conversations and bonding, especially with grandparents.
- * Maintain a creative journal capturing memorable outings, celebrations, or simple joyful moments, along with the photographs.

Always remember that true education is not confined to books, examinations, and marks alone; it lies in becoming a good human being with a caring heart and noble character. Even the smallest act of kindness can bring a positive change to society and make the world a better place to live in.

We hope you complete these assignments with enthusiasm, creativity, and sincerity. Make this summer truly meaningful by learning new things, helping others, spreading happiness, and creating beautiful memories.

A few essential guidelines to be followed before proceeding towards the tasks assigned:

- ❖ All assignments must be completed with sincerity and submitted promptly after the vacation. Kindly ensure the work is neatly arranged in a well-labelled folder with the student's name, father's name, class, and section.

Happy Holidays!

ENGLISH

1. AIL Activity

Prepare a creative project file or scrapbook on Punjab and Odisha.

Use pictures, drawings, charts, maps, and handwritten information.

The file should include the following:

Famous Dance

Famous Food

Traditional Dress

Festivals

Tourist Places

Main Occupation

2. You are Rohan, Head Boy of Sanskriti KMV School. Write a notice for the notice board informing the students about the trip to Delhi during the summer vacation. Invent all the necessary details. Notice should not be more than 50 words.

3. There are many children like Sher Singh, who display bravery in the face of danger. The National Bravery Award is given to such children by the Indian government. Use the internet to research about any five children who have received the award and prepare a photo album explaining about their acts of bravery.

4. Literature

Read the lesson 'The Memorable 60th' from your course book.

Write down its summary in your notebook.

Find 10 difficult words from the lesson and use them in sentences of your own.

5. Identify the Figure of Speech

A) Choose the correct figure of speech from the box below:

(Simile, Metaphor, Personification, Alliteration, Hyperbole)

i) The stars danced in the sky. _____

ii) She is as brave as a lion. _____

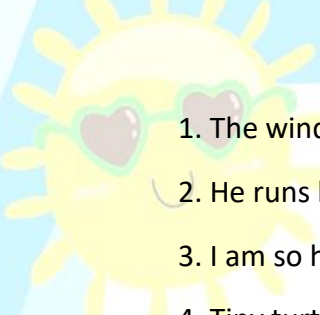

iii) Peter Piper picked a peck of pickles. _____

iv) I have told you a million times to finish your work. _____

v) The classroom was a zoo. _____

B). Match the Following Sentences:

Figure of Speech


- 
- 
1. The wind whispered softly. a. Hyperbole
 2. He runs like a cheetah. b. Personification
 3. I am so hungry I could eat a horse. c. Simile
 4. Tiny turtles talk together. d. Alliteration

6.)

A. Add the Correct Prefix:

Choose the correct prefix from the box and complete the words.

(un-, dis-, re-, im-, mis-)



___ happy

___ write

___ possible

___ understand

___ behave

B. Add the Correct Suffix

Choose the correct suffix from the box and complete the words.

(-ful, -less, -ness, -ly, -ment)

Care → care _____

Happy → happi _____


Kind → kind _____

Use → use _____

Enjoy → enjoy _____

MATHS

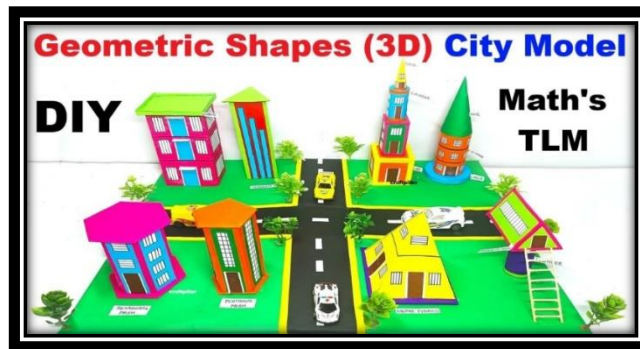
General instructions:

- 
- i. Submit your work in file/folder with a cover page.
 - ii. Do your work neatly and creatively.
 - iii. Use loose sheets to do practice questions and project work.

Project Work:

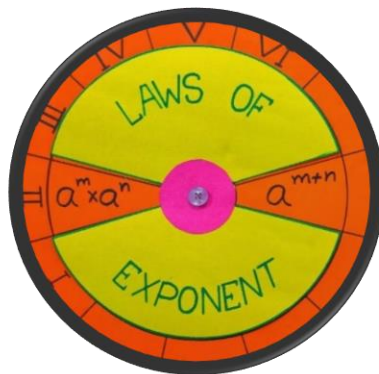
Roll No. 1 – 10 : Make a model of geometrical city

For reference:



Roll No. 11 – 20: Make a model on laws of exponents.

For reference:



Roll No. 21 onwards (AIL ACTIVITY)

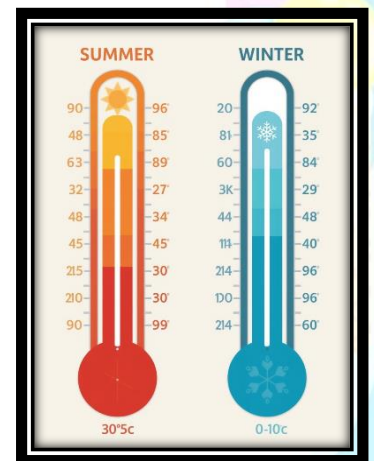
Make a project file on the topic 'To compare the average maximum and minimum temperature of Punjab and Orissa using double bar graph of the month January to December.'

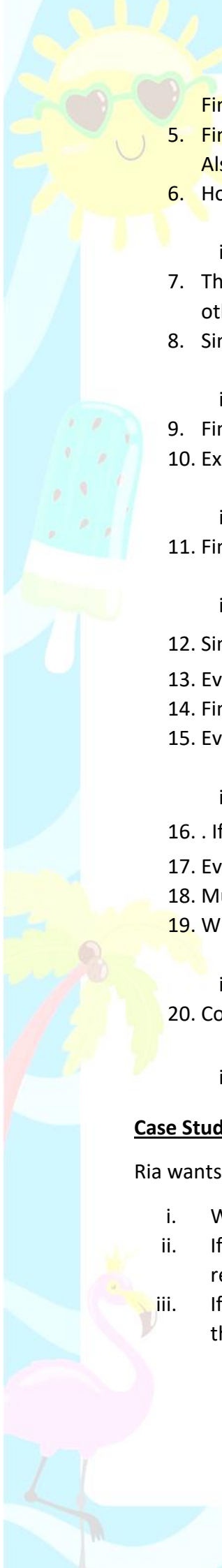
Lab Manual Activity:

Do activity number 3, 4, 5, 6

Practice Questions:

1. Find the least square number which is divisible by 10, 16, 24.
2. A gardener planted an orchard with 5625 trees and arranged them so that the number of rows equals the number of trees in each row. Find the number of trees in each row.
3. Three numbers are in the ratio 2 : 3 : 4. The sum of their cubes is 33957. Find the numbers.
4. Find the squares of: (i) 6.25 (ii) $\frac{-16}{17}$






Find the cube root of 216×125

5. Find the smallest number by which 704 must be divided to obtain a perfect cube. Also write the perfect cube so obtained.
6. How many numbers lie between the squares of:
 - i. 46 and 47
 - ii. 97 and 98
7. The sum of the squares of two numbers is 1088. If one of the numbers is 8, find the other.
8. Simplify and write the answer in exponential form:
 - i. $(-4)^5 \times (5)^{-5} \times (-5)^{-5}$
 - ii. $(3^6 \div 3^{-10}) \times 3^{-12}$
9. Find the value of x in: $3^{12} \times 3^{-2} \div 3^x = 27$
10. Express the numbers in Standard form:
 - i. 0.00000024
 - ii. 13670000
11. Find the value of:
 - i. $(3^{-1} + 4^{-1} + 6^{-1})^0$
 - ii. $(6^0 + 4^0) \times 5^0$
12. Simplify: $\left(\frac{2^4}{5^8}\right) \times \left(\frac{25^4}{4^2}\right) \div \frac{49}{121}$
13. Evaluate: $(1^2 + 2^2)^{-3}$
14. Find the product: $(5a + 2b) \times (3a + b)$
15. Evaluate using identities:
 - i. 103^2
 - ii. 95^2
16. . If $x + \frac{1}{x} = 4$, find the value of $x^2 + \frac{1}{x^2}$
17. Evaluate $(3m - 7n)(3m + 7n)$ using identity.
18. Multiply: $(2a + 3b)(a - b + 2c)$
19. Without adding, find the sum:
 - i. $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15$
 - ii. $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21$
20. Convert into exponential form:
 - i. -256
 - ii. $\frac{64}{729}$

Case Study 1: Square Roots

Ria wants to design a square photo frame, and she has a total area of 2704 cm^2 available.

- i. What is the length of each side of the square frame?
 - ii. If she needs to apply a colored ribbon all around the frame, how much ribbon is required?
 - iii. If she decides to reduce the area by 19 cm^2 to make a smaller inner frame, what is the new area?
- 

Case study 2

A rectangular garden has length $(2x+3)$ units and breadth $(3x-4)$ units. Inside the garden there is a rectangular land in which tulips are grown. All around the tulip cultivation there exist a path. Based on the information provided, answer the following questions:

- i. Formulate an algebraic expression that gives the area of rectangle.
- ii. Find the area if $x = 3$
- iii. What expression gives the area of the garden without the path given that the path adds a total of 2cm each to the length and breadth?

SCIENCE

INSTRUCTION: Solve this assignment on loose sheets.

Case Study 1 :

During a science class, Arjun broke a piece of chalk into smaller pieces and ground them into a fine powder. He observed the powder under a magnifying glass and saw tiny chalk particles. Later, he poured 100 mL of water into different-shaped containers and noticed it took their shapes but kept the same volume. At home, he smelled incense smoke spreading across the room. Arjun wondered why chalk breaks into smaller particles, why water changes shape, and how smoke spreads.

Answer the following questions:


1. Why does chalk break into smaller particles when ground?
2. Why does water take the shape of different containers but keep the same volume?
3. How does the spreading of incense smoke demonstrate the behaviour of gas particles, and what is the role of interparticle forces?
4. Why can't chalk particles dissolve in water like sugar?
5. What happens to chalk particles if ground to the smallest possible size?

Case Study 2 :

Meera conducted an experiment by adding a pinch of potassium permanganate to water and saw pink streaks spreading until the water turned uniformly pink. She tried compressing water in a syringe and found it hard to compress, but air in the syringe compressed easily. At home, she noticed a candle's wax melting when heated and solidifying when cooled. Meera wondered why the pink color spread, why air compresses but water doesn't, and how wax changes state.

Answer the following questions:

1. Why did the pink color of potassium permanganate spread in water?
2. Why was it easier to compress air than water in the syringe?



3. How does heating change the wax from solid to liquid, and what role do interparticle forces play?

4. Why does water not compress like air in the syringe?

5. What would happen if Meera heated the melted wax further?

Application Based Questions:

1. Why does a wet cloth dry faster in summer than in winter? Explain using particle theory.

2. Why do we feel cool when we apply perfume or sanitizer on our skin?

3. A student opens a bottle of ammonia in one corner of the classroom and soon everyone can smell it. Why?

4. Why does hot tea cool down faster when poured into a cup than when kept in a kettle?

5. Why does food get cooked faster in smaller pieces compared to a whole piece?

Lab Manual: Do write Experiment No. 1,2,3,5,6,12,13,14,15.

ALL Activity : "Exploring States of Matter through the Culture of Punjab and Odisha"

Students will prepare a collage or 3D model showing comparison between Punjab and Odisha

For example :From Punjab

Solid State: Wheat grains, Phulkari embroidery, Punjabi dhol.

Liquid State: Lassi, Mustard oil used in Punjabi cooking, River water from Punjab rivers.


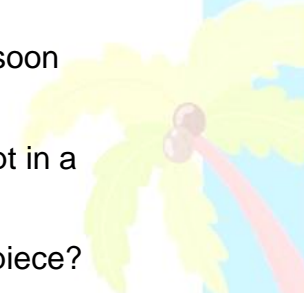



Gaseous State: Steam from hot tea, Air used while playing musical instruments, Smoke from traditional cooking.

For example: From Odisha

Solid State: Pattachitra paintings, Konark Sun Temple model, Sand art

Liquid State: Coconut water, Chilika Lake water, Traditional Odia drinks

Gaseous State: Steam from Rasgulla preparation, Air movement during Odissi dance performance, Incense smoke in Jagannath Temple rituals



SOCIAL SCIENCE

Activity -1

1. Do the following worksheets in Activity Oriented Worksheets booklet.

- i. Worksheet - 3 page number 5
- ii. Worksheet - 4 page number 6
- iii. Worksheet - 5 page number 7
- iv. Worksheet -7 page number 9
- v. Worksheet -8 page number 10

Activity 2

Map Skill page number 4,6, 34 to 36 and 40.

Activity 3

ALL activity - Topic : 'Your Vote , Your Voice'

To understand the importance of voting in democracy , learn about cultural system and explore ways to strengthen democratic participation , prepare a project on Universal Adult Franchise and India's Electoral System. Your project should include;

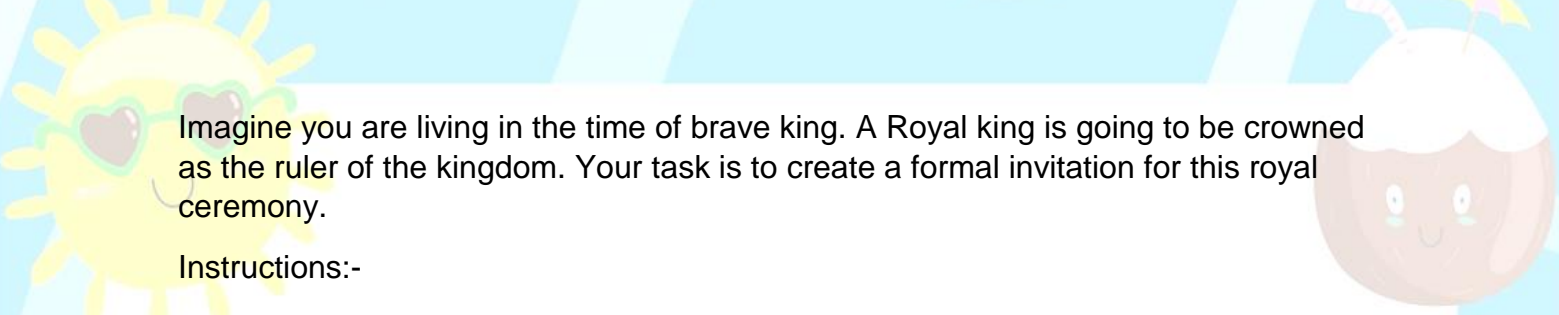
- i. Meaning and Importance
- ii. When India adopted Universal Adult Franchise.
- iii.. Role of Election Commission of India.
- iv. Steps in the Election process in the form of flow chart.
- v. Importance of free and fair elections.
- vi. Challenges faced during elections , possible solution, regional political parties , symbols, ideologies, party in power, CM, Governor, famous Ministers.
- vii. Compare the Political parties and their ideologies , symbols, important parties and party leaders of Punjab and Odisha.

4. Project guidelines:

- i. Maintain neatness and creativity.
- ii. Minimum 8 to 10 pages.
- iii. Use diagrams, coloured headings, flowcharts.
- iv. Add: Picture, slogans, drawings

Activity -4

Project file



Imagine you are living in the time of brave king. A Royal king is going to be crowned as the ruler of the kingdom. Your task is to create a formal invitation for this royal ceremony.

Instructions:-

Show the qualities like.

- * Bravery
- * Wisdom
- * Self ruled leadership
- * Write the invitation in rhyming lines including 3D royal symbols.
- * Crown
- * Swords
- * Flag
- * Fortresses
- * Decorative material to be used.

Presentation Tips:-

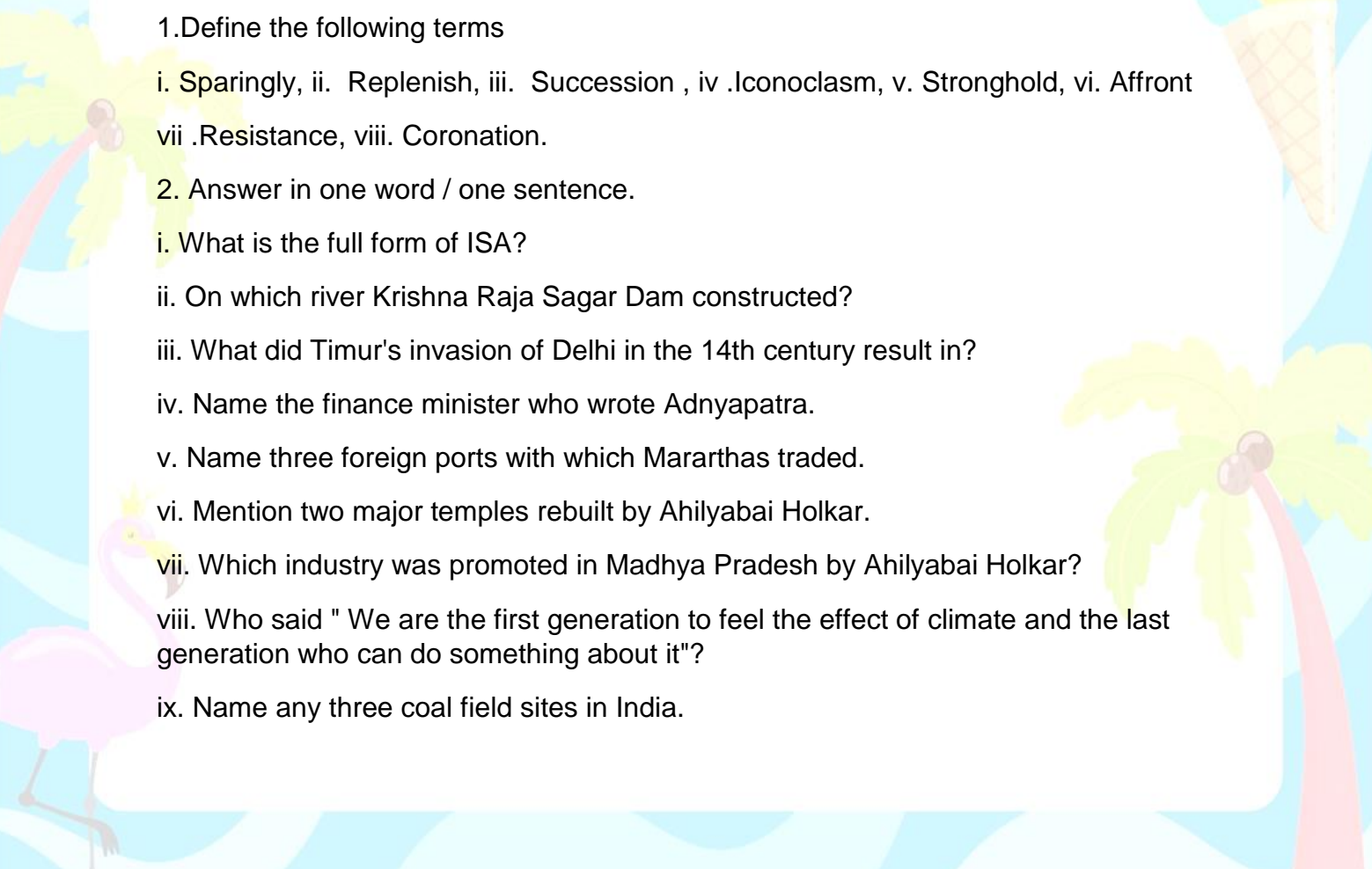
- * Make decorative border
- * Write neatly and creatively
- * Draw the royal symbols around the page.

Activity -5

1. Define the following terms

i. Sparingly, ii. Replenish, iii. Succession, iv. Iconoclasm, v. Stronghold, vi. Affront
vii. Resistance, viii. Coronation.

2. Answer in one word / one sentence.

- i. What is the full form of ISA?
 - ii. On which river Krishna Raja Sagar Dam constructed?
 - iii. What did Timur's invasion of Delhi in the 14th century result in?
 - iv. Name the finance minister who wrote Adnyapatra.
 - v. Name three foreign ports with which Mararthas traded.
 - vi. Mention two major temples rebuilt by Ahilyabai Holkar.
 - vii. Which industry was promoted in Madhya Pradesh by Ahilyabai Holkar?
 - viii. Who said " We are the first generation to feel the effect of climate and the last generation who can do something about it"?
 - ix. Name any three coal field sites in India.
- 

x. 'Vrikshayurveda' a word derived from which language?

3. Answer the following questions.

i. Why is the unequal distribution of natural resources a concern?

ii. What were the features of the Mansabdari system introduced by Akbar?

iii. Describe Shivaji 's strategy of guerrilla warfare.

iv. Why is the Battle of Panipat (1526) considered as a turning point in Indian history?

v. Differentiate between renewable and non renewable resources. Provide examples

HINDI

निर्देश :- * प्रश्न १-७ तक के सभी प्रश्न वर्कशीट पर करें ।

* प्रश्न ८ - १० तक के कार्य सुंदर और आकर्षक होने चाहिए।

प्रश्न १ निम्नलिखित अपठित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए :-

पेड़-पौधे हमारे जीवन का एक महत्वपूर्ण हिस्सा हैं। वे हमें शुद्ध वायु, फल, फूल, लकड़ी, छाया तथा अनेक प्रकार की औषधियाँ प्रदान करते हैं। पेड़ वातावरण को संतुलित रखने में महत्वपूर्ण भूमिका निभाते हैं। वे कार्बन डाइऑक्साइड ग्रहण करके ऑक्सीजन छोड़ते हैं, जिससे वायु शुद्ध रहती है।

आजकल बढ़ते प्रदूषण और जंगलों की कटाई के कारण पर्यावरण को बहुत हानि पहुँच रही है। यदि पेड़ों की संख्या कम होती जाएगी, तो वर्षा प्रभावित होगी और प्राकृतिक संतुलन बिगड़ सकता है। इसलिए हमें अधिक से अधिक पेड़ लगाने चाहिए और उनकी रक्षा करनी चाहिए। यदि हम प्रकृति की रक्षा करेंगे, तो प्रकृति भी हमारी रक्षा करेगी।

i) पेड़-पौधे हमें क्या-क्या प्रदान करते हैं ?

i)

ii) पेड़ वातावरण को कैसे शुद्ध रखते हैं ?

ii)

iii) पर्यावरण को हानि क्यों पहुँच रही है ?

iii)

iv) पेड़ों की संख्या कम होने से क्या प्रभाव पड़ सकता है ?

iv)

v) हमें किसकी रक्षा करना चाहिए ?

v)

प्रश्न २:- 51 से 70 तक हिंदी में संख्या तथा नाम लिखें ।(उत्तर-पुस्तिका में करें)

प्रश्न ३:- निम्न शब्दों का वर्ण- विच्छेद कीजिए-

i) पक्षी -

ii) पुस्तक -

iii) कमल -

iv) शिक्षक -

v) विद्यालय -

प्रश्न ४ नीचे दिए गए शब्दों में से संज्ञा पहचानकर भेद लिखें -

i) मोहन स्कूल गया।

i)

ii) दिल्ली भारत की राजधानी है।

ii)

iii) बच्चा गेंद से खेल रहा है।

iii)

iv) गंगा एक पवित्र नदी है।

iv)

v) महात्मा गांधी ने कई आंदोलन चलाए ।

v)

प्रश्न ५ नीचे दिए गए शब्दों में उपसर्ग और मूल शब्द अलग करके लिखें -

i) अन्याय -

ii) परिश्रम -

iii) दुर्गंध -

iv) अनपढ़ -

v) उपकार -

प्रश्न ६ सही उपसर्ग लगाकर नए शब्द बनाइए -

i) _____ मान

ii) _____ दोष

iii) _____ काम

iv) _____ योग

v) _____ लेख

प्रश्न ७ हिंदी पाठ्यपुस्तक के पाठ ४ 'मित्रता' को पढ़ें और किन्हीं दो विश्व प्रसिद्ध हस्तियाँ जिन्होंने मित्रता की मिसाल कायम की है उनके चित्र चिपका कर जानकारी दें। (कार्य वर्कशीट पर करके संलग्न करें)

प्रश्न ८ हिंदी के चार प्रसिद्ध कवियों तथा चार प्रसिद्ध लेखकों के फ्लैश कार्ड तैयार करें और उन पर उनकी प्रमुख रचनाओं के नाम भी लिखें ।

प्रश्न ९ विषय: “मेरा अपना समाचार-पत्र”

निर्देश: विद्यार्थी एक छोटा हस्तनिर्मित समाचार पत्र (Handmade Newspaper) तैयार करें। इसका नाम अपनी पसंद से रखें, जैसे - “युवा समाचार”, “बाल दुनिया”, “नई सोच टाइम्स”, “आज की हलचल” आदि।

आपके समाचार पत्र में ये चीजें अवश्य हों :

- * ताज़ा खबर -५ (Breaking News -पर्यावरण/ खेल/ समाज)
- * छोटी कविता - १ (प्रेरणादायक/प्रकृति आदि पर)
- * पहेलियाँ -५ (स्वयं बनाइए)
- * चुटकुले -५
- * आकर्षक विज्ञापन -१ (किसी वस्तु/ स्वच्छता/पुस्तक/ पौधारोपण आदि से संबंधित)

प्रश्न १० : AIL - पंजाब तथा ओडिशा के किन्हीं पाँच - पाँच हस्तकला के नमूनों को स्क्रेप बुक पर चिपकाएँ और उनसे संबंधित जानकारी स्क्रेप बुक पर लिखें।(कार्य सुंदर एवं आकर्षक होना चाहिए) ।



PUNJABI

" ਆਪ ਕਾਜ ਮਹਾਂ ਕਾਜ "

1 ਵਰਨਮਾਲਾ ਦੀਆਂ ਵੱਖ-ਵੱਖ ਟੋਲੀਆਂ ਨਾਲ ਸੰਬੰਧਿਤ ਅੱਖਰ/ ਵਰਨ ਲਿਖਦੇ ਹੋਏ ਵਰਨਮਾਲਾ ਪੂਰੀ ਕਰੋ:-

ਲੜੀ ਨੰਬਰ	ਵਰਗ ਦਾ ਨਾਮ	ਅੱਖਰ
1		
2		
3		
4		
5		
6		
7		
8		

2. ਲਗਾਂ - ਮਾਤਰਾਵਾਂ ਦੇ ਨਾਮ ਲਿਖਦੇ ਹੋਏ ਅਤੇ ਉਹਨਾਂ ਦੇ ਚਿੰਨ੍ਹ ਬਣਾਉਂਦੇ ਹੋਏ ਦੋ - ਦੋ ਉਦਾਹਰਨਾਂ ਵੀ ਲਿਖੋ:-

ਲੜੀ ਨੰਬਰ	ਲਗਾਂ ਦੇ ਨਾਮ	ਚਿੰਨ੍ਹ	ਸ਼ਬਦ
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

3. ਵਰਕਸ਼ੀਟ (ਤਿੰਨ ਸਵਾਲ , ਅੱਖਰ ਬੋਧ)

(i) ਸ਼ਬਦ ਅਰਥ

(ੳ) ਡੱਡੀ ਪਿਟਵਾਉਣਾ

(ਅ) ਅੱਖ ਲੱਗਣਾ

(ii) ਵਾਕ ਬਣਾਓ :-

ਬਿਪਤਾ

(iii) ਖਾਲੀ ਥਾਵਾਂ ਭਰੋ :-

(ੳ) ਉਹ ਅੱਖਰ ਜੋ ਦੂਜੇ ਅੱਖਰਾਂ ਦੀ ਸਹਾਇਤਾ ਤੋਂ ਬਿਨਾਂ ਹੀ ਬੋਲੇ ਜਾਂਦੇ ਹਨ, ਉਹਨਾਂ ਨੂੰ _____ ਆਖਦੇ ਹਨ।

(ਅ) ਜਿਹਨਾਂ ਦਾ ਉਚਾਰਨ ਮੂਲ ਜਾਂ ਹ੍ਰਸਵ ਸਵਰਾਂ ਨਾਲੋਂ ਤਿੰਨ ਗੁਣਾ ਵੱਧ ਅਵਾਜ਼ ਨਾਲ ਕੀਤਾ ਜਾਂਦਾ ਹੈ, ਉਹਨਾਂ ਨੂੰ _____ ਕਿਹਾ ਜਾਂਦਾ ਹੈ।

(ੲ) ਰਾਜੇ ਅਤੇ _____ ਨੇ ਜੰਗਲ ਵਿੱਚ _____ ਆਉਂਦਾ ਦੇਖਿਆ।

(ਸ) ਨੌਜਵਾਨ ਨੂੰ _____ ਰਾਜੇ ਦੇ _____ ਨੇ ਕੀਤਾ ਸੀ।

(iv) ਹੇਠਾਂ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਲਿਖੋ :-

(ੳ) ਵਰਨਮਾਲਾ ਦੀ ਪਰਿਭਾਸ਼ਾ ਲਿਖੋ ।

(ਅ) 'ੳ' ਨਾਲ ਲੱਗਣ ਵਾਲੀਆਂ ਤਿੰਨ ਲਗਾਂ ਦੇ ਨਾਮ ਲਿਖੋ।

(ੲ) ਤਪੀਸਰ ਅਨੁਸਾਰ ਸਭ ਤੋਂ ਚੰਗਾ ਸਮਾਂ ਕਿਹੜਾ ਹੈ ?

(ਸ) ' ਤਿੰਨ ਸਵਾਲ ' ਕਹਾਣੀ ਵਿਚਲੇ ਪਾਤਰਾਂ ਦੇ ਨਾਮ ਲਿਖੋ।

4. ਪਿੰਗਲਵਾੜਾ ਕਿਸ ਨੂੰ ਆਖਦੇ ਹਨ ? ਪਿੰਗਲਵਾੜੇ ਦੇ ਬਾਨੀ ਭਰਤ ਪੂਰਨ ਸਿੰਘ ਬਾਰੇ ਜਾਣਕਾਰੀ ਇਕੱਠੇ ਕਰਕੇ ਸਕਰੈਪ ਕਾਪੀ ਉੱਤੇ ਲਿਖੋ।(ਜਨਮ , ਸੁਭਾਅ, ਰਹਿਣ- ਸਹਿਣ , ਮਹੱਤਵਪੂਰਨ ਘਟਨਾਵਾਂ , ਪਿੰਗਲਵਾੜੇ ਦੀ ਸ਼ੁਰੂਆਤ ,ਕਿਤਾਬਾਂ)

5. ਨਿੱਜੀ ਪੱਤਰ

ਆਪਣੇ ਮਿੱਤਰ ਨੂੰ ਪੱਤਰ ਰਾਹੀਂ ਦੱਸੋ ਕਿ ਤੁਹਾਡੇ ਸਕੂਲ ਵਿੱਚ ਪਸ਼ੂਆਂ - ਪੰਛੀਆਂ ਦੀ ਰੱਖਿਆ ਨਾਲ ਸੰਬੰਧਿਤ ਸੈਮੀਨਾਰ ਹੋਇਆ ਸੀ। ਉਸ ਵਿੱਚ ਉਹਨਾਂ ਨੇ ਪਸ਼ੂ - ਪੰਛੀਆਂ ਦੀ ਸੁਰੱਖਿਆ ਬਾਰੇ ਤੁਹਾਨੂੰ ਕੀ - ਕੀ ਸਮਝਾਇਆ ,ਇਸ ਬਾਰੇ ਆਪਣੇ ਵਿਚਾਰ ਸਾਂਝੇ ਕਰੋ।

6. ' ਗੱਗੂ ' ਪਾਠ ਪੜ੍ਹ ਕੇ ਦਸ ਪ੍ਰਸ਼ਨ - ਉੱਤਰ ਆਪ ਬਣਾ ਕੇ ਲਿਖੋ।

7. ਜੇਕਰ ਤੁਹਾਨੂੰ ਕੋਈ ਫ਼ਰਿਸ਼ਤਾ ਕੁੱਝ ਮੰਗਣ ਲਈ ਆਖੇ ਤਾਂ ਤੁਸੀਂ ਫ਼ਰਿਸ਼ਤੇ ਕੋਲੋਂ ਕੀ ਮੰਗੋਗੇ ? ਇਸ ਵਿਸ਼ੇ ਉੱਤੇ ਦੋ - ਤਿੰਨ ਮਿੰਟ ਦਾ ਭਾਸ਼ਣ ਤਿਆਰ ਕਰੋ।

8. ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ (AII)

(i) ਚਿੱਤਰ ਵਰਨਣ (ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ)



(ii) ਘਰ ਵਿੱਚ ਪਈਆਂ ਪੁਰਾਣੀਆਂ ਚੀਜ਼ਾਂ ਦੀ ਵਰਤੋਂ ਕਰਦੇ ਹੋਏ ਇੱਕ ਸਜਾਵਟੀ ਤੋਹਫ਼ਾ ਬਣਾਓ। (ਪੰਜਾਬ- ਉੜੀਸਾ)

9. (i) ਵਿਆਕਰਨ ਦੀ ਪੁਸਤਕ ਸੰਬੰਧੀ ਲੇਖ (ਬੇਰੁਜ਼ਗਾਰੀ ਦੀ ਸਮੱਸਿਆ, ਸਮੇਂ ਦੀ ਕਦਰ, ਗਰਮੀ ਦੀ ਰੁੱਤ, ਮੇਥਾਇਲ ਦੇ ਲਾਭ ਅਤੇ ਹਾਨੀਆਂ, ਪੰਜਾਬ ਦੇ ਮੇਲੇ), ਕਹਾਣੀਆਂ (1 ਤੋਂ 4 ਤੱਕ) ਪੜ੍ਹੋ।

(ii) ਜਮਾਤ ਵਿੱਚ ਕੀਤੇ ਕੰਮ ਦੀ ਦੁਹਰਾਈ ਕਰੋ।

ਨੋਟ :- ਸਾਰਾ ਕੰਮ ਸਕਰੈਪ ਕਾਪੀ ਉੱਤੇ ਲਿਖੋ।

COMPUTER

I. Emerging Tech Stars:

Part A – Multiple Choice Questions

1. Which robot is mainly used in factories?

- a) Medical robot b) Industrial robot c) Domestic robot d) Educational robot

2. A robot vacuum cleaner is an example of:

- a) Industrial robot b) Space robot c) Domestic robot d) Military robot

3. Which sensor detects light?

- a) Temperature sensor b) Ultrasonic sensor c) Light sensor d) Touch sensor

4. Which sensor helps a robot avoid obstacles?

- a) Gas sensor b) Ultrasonic sensor c) Light sensor d) Sound sensor

5. A touch sensor works when:

- a) There is sound b) It detects heat c) It is pressed or touched d) It detects light

6. Which logic gate gives output 1 only when both inputs are 1?

- a) OR gate b) NOT gate c) AND gate d) XOR gate

7. Which gate reverses the input?

- a) AND gate b) OR gate c) NOT gate d) NAND gate

8. In robotics, sensors are used to:

- a) Decorate robots b) Help robots sense surroundings c) Increase robot weight d) Change robot color

Part B – Fill in the Blanks

1. Robots used for surgery are called _____ robots.

2. A _____ sensor detects distance.

3. The _____ gate gives output 1 if at least one input is 1.

4. A _____ robot is used in homes for cleaning and assistance.

5. The _____ gate has only one input.

Part C – Match the Following

- | | |
|-------------------|----------------------|
| Industrial Robot | a. Detects light |
| Light Sensor | b. Used in factories |
| Ultrasonic Sensor | c. Reverses input |
| NOT Gate | d. Measures distance |

Part D – True or False

1. Robots can work without sensors. _____

2. AND gate needs two inputs. _____

3. A light sensor detects brightness. _____

4. Domestic robots are used in homes. _____

5. NOT gate gives the same output as input. _____

ALL: Know Your State: Odisha and Punjab

- II. Research and create a **presentation (PPT or E-Collage)** on any one of the following topics:
- Geography of Odisha and Punjab
 - Famous tourist places and Punjab
 - Traditional art forms (e.g., Pattachitra, Sand Art)
 - Festivals (e.g., Rath Yatra, Baisakhi)
 - Food and clothing styles

- III. Read the passage , watch the video provided in following link <https://www.youtube.com/watch?v=4aZY2MZmNBo> and answer the questions given below the text:

AI Project Lifecycle

Imagine a world where machines can hear, see, talk, and even take decisions. This may sound like a scene from a science fiction movie. It is not; it is Artificial Intelligence (AI).

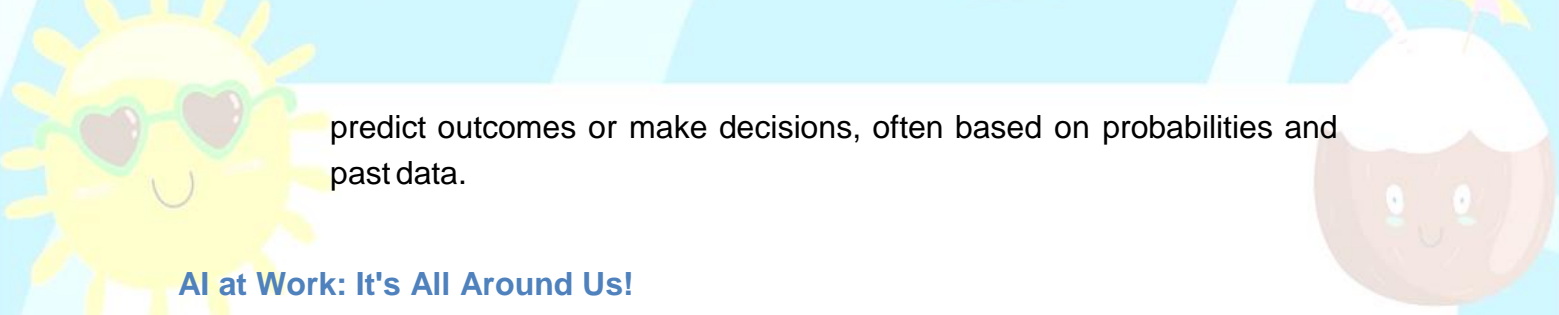
AI is a type of technology that gives machines and computers the ability to perform work that normally requires human intelligence. These machines can perform complex tasks done by humans, like analysing data, finding patterns, predicting trends, solving problems, and making decisions by using data and learning from past experiences.

AI systems are designed to learn, adapt, and improve their performance over time. In simple words, AI is human-made intelligence that allows machines to behave intelligently. How is this possible?

Artificial Intelligence systems have been created to mimic human cognitive processes.

They can:

- **Analyse data:** Humans read and understand information to get knowledge. Similarly, AI studies large amounts of data to find meaning and make decisions. It can manage huge data quickly and efficiently.
- **Recognize patterns:** AI recognises patterns and relationships in data, such as trends, similarities, or repeated behaviours, by learning from various examples.
- **Learn from experience:** AI keeps improving over time by learning from new data. The more it learns, the better its performance becomes, much like humans improving with practice.
- **Make predictions or decisions:** Using what it has learned, AI can



predict outcomes or make decisions, often based on probabilities and past data.

AI at Work: It's All Around Us!

AI is an important part of our everyday lives.

Here are a few examples:

In Healthcare: AI helps doctors diagnose diseases faster and more accurately by looking at medical scans and reports.

At Home: AI powers smart home devices like speakers that play your favourite music when you tell them to and thermostats that learn what temperature you like.

Getting Around: AI is the main technology behind self-driving cars and helps navigation apps find the quickest routes.

On Your Smartphone: AI is used when you use a voice assistant on your phone to set a reminder or when your photo app automatically puts pictures of the same person together.

Personalised Apps: It suggests new videos, items, and products you might like based on what you have done in the past.

How does AI learn?


The real magic behind Artificial Intelligence lies in **data**. Artificial intelligence and Machine Learning systems learn from data. These models learn by analysing huge datasets and recognising patterns. For example, Voice assistants, language translators and recommendation systems are so intelligent that they seem to know everything—that is only because they have access to massive data and keep training themselves. Every AI-driven program works correctly when supported by accurate and reliable data.

What is an AI Project?

Creating an AI application isn't magic, but it is a defined process. An AI project is the journey of developing a smart system to solve a real-world problem by learning from data.

Think of it like a science fair project. You have a clear goal: *Will a plant grow better with sunlight?* For an AI project, the goal is just as specific, for example, to build a system that can recommend a new product to a user or create a filter that automatically detects spam emails.

An **AI project** is a step-by-step process of developing a system or model using artificial intelligence technology to solve a real-world problem by learning from past data. Similar to science projects, AI projects also have specific goals, such as recommending songs or detecting spam emails. The developed AI-based system is

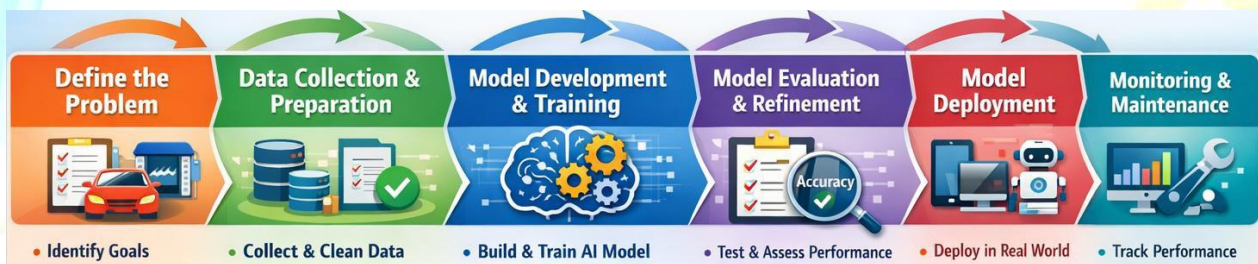


first trained on previous data, then identifies patterns, and makes predictions or decisions. The entire process of building, testing, and improving the system step by step is called the **AI project lifecycle**.

AI Project lifecycle:

The AI project lifecycle is an iterative, six-stage framework, for developing, deploying, and maintaining AI tools. It starts with defining the problem, data collection and preparation for modelling, development and training of AI models, model evaluation and its refinement, deployment of the model and continuous monitoring and maintenance.

Key Phases of AI Project lifecycle:



1. Define the problem:

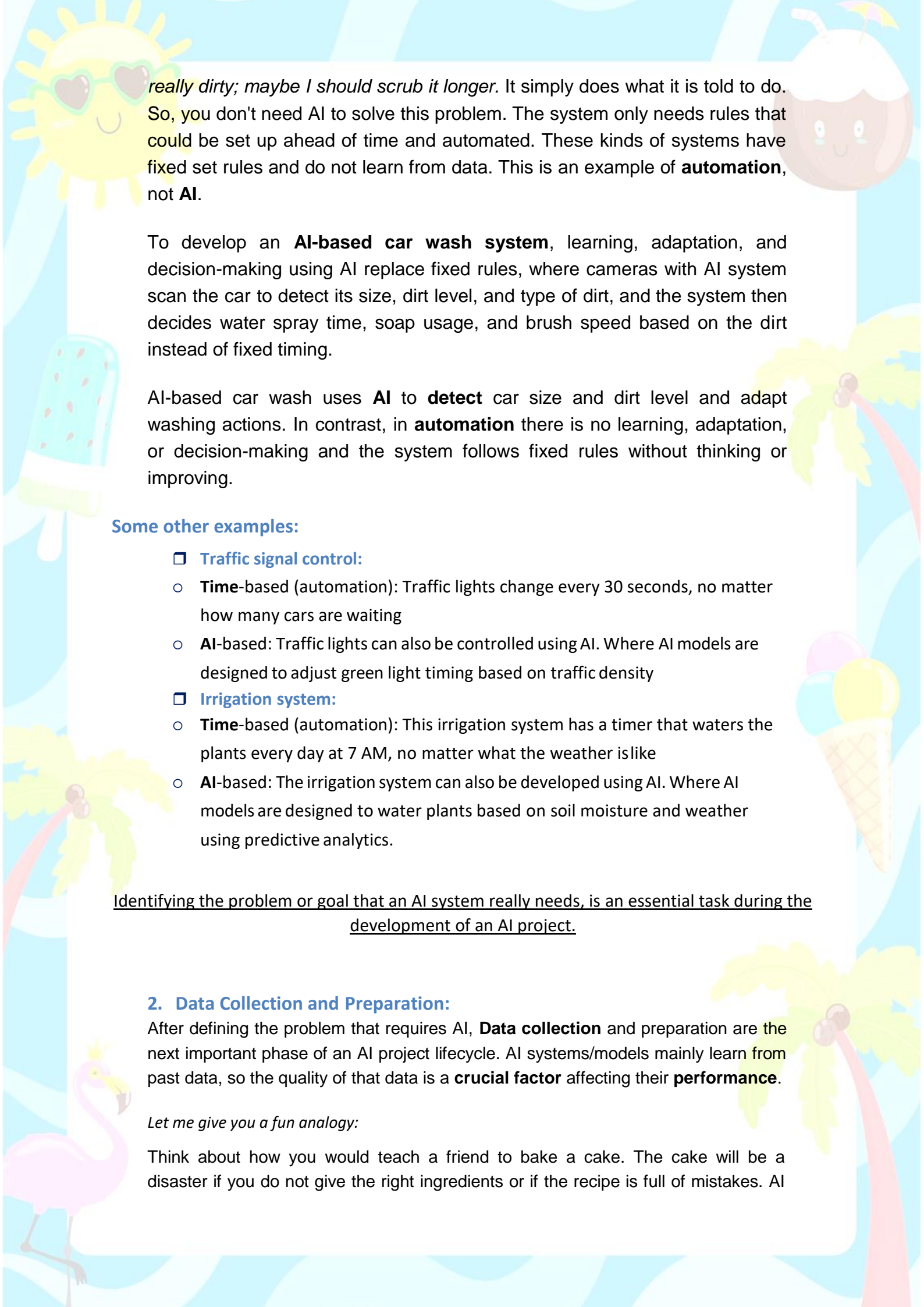
The first and most crucial step in an AI project lifecycle is to define or identify the problem or goal clearly. At this stage, we must determine how the system should work and whether the AI system is really required for this project. It may be possible to complete the project without AI using simple automation.

Let us take an example of an Automatic car wash system

In this problem, the steps are:

- The car enters the bay
- Sensor detects Vehicle Position
- The car moves forward on the conveyor
- For a fixed duration, water is sprayed
- Soap is applied for a fixed time
- Brushes rotate at programmed speed
- Rinse cycle run
- Dryer activates
- The system stops when the car exits

In this example, there is no learning, adaptation, or decision-making beyond the programmed logic. No matter how big or small the car is, the machine always does the same things in the same way. It doesn't think, *this car is*



really dirty; maybe I should scrub it longer. It simply does what it is told to do. So, you don't need AI to solve this problem. The system only needs rules that could be set up ahead of time and automated. These kinds of systems have fixed set rules and do not learn from data. This is an example of **automation**, not **AI**.

To develop an **AI-based car wash system**, learning, adaptation, and decision-making using AI replace fixed rules, where cameras with AI system scan the car to detect its size, dirt level, and type of dirt, and the system then decides water spray time, soap usage, and brush speed based on the dirt instead of fixed timing.

AI-based car wash uses **AI** to **detect** car size and dirt level and adapt washing actions. In contrast, in **automation** there is no learning, adaptation, or decision-making and the system follows fixed rules without thinking or improving.

Some other examples:

- ❑ **Traffic signal control:**
 - **Time-based** (automation): Traffic lights change every 30 seconds, no matter how many cars are waiting
 - **AI-based:** Traffic lights can also be controlled using AI. Where AI models are designed to adjust green light timing based on traffic density
- ❑ **Irrigation system:**
 - **Time-based** (automation): This irrigation system has a timer that waters the plants every day at 7 AM, no matter what the weather is like
 - **AI-based:** The irrigation system can also be developed using AI. Where AI models are designed to water plants based on soil moisture and weather using predictive analytics.

Identifying the problem or goal that an AI system really needs, is an essential task during the development of an AI project.

2. Data Collection and Preparation:

After defining the problem that requires AI, **Data collection** and preparation are the next important phase of an AI project lifecycle. AI systems/models mainly learn from past data, so the quality of that data is a **crucial factor** affecting their **performance**.

Let me give you a fun analogy:

Think about how you would teach a friend to bake a cake. The cake will be a disaster if you do not give the right ingredients or if the recipe is full of mistakes. AI

is the same. The AI will be bad if the data is bad. In the world of AI, there is a well-known saying: **Garbage In, Garbage Out.**

Data collection:

Relevant data can be collected from the various sources based on the problem. Some of the sources of data collection are:

- **Sensors:** It is a device that measures physical changes in the environment and convert them into a measurable electrical signal. For example, temperature sensor measures the heat, or light sensor can detect the light intensity and convert it into an electrical signal.
- **Surveys:** Data is collected by asking questions and collecting responses from people
- **Websites:** Data can be collected from online sources such as articles, social media platforms, and websites.
- **Historical records:** These include past data stored in files, reports, or records.

Let us take an example:

To predict whether a student will score more than 75% marks in the exam or not. This is something every student secretly worries about, right?

For this problem, we can collect the following data from the previous students:

- **Attendance percentage** shows whether regular attendees usually score better
- **Hours studied per day** show if studying more helps improve performance
- **Previous test marks** show how they performed in earlier tests
- **Participation in class** Yes or No shows whether active students are more likely to succeed
- Final exams result Above 75% or Below 75% is the result we want to predict

Students	Attendance	Study Hours	Test Marks	Participation	Final Result
Student 1	90%	3 hours	78	Yes	Above 75%
Student 2	60%	1 hours	55	No	Below 75%
Student 3	80%	2 hours	70	Yes	Above 75%

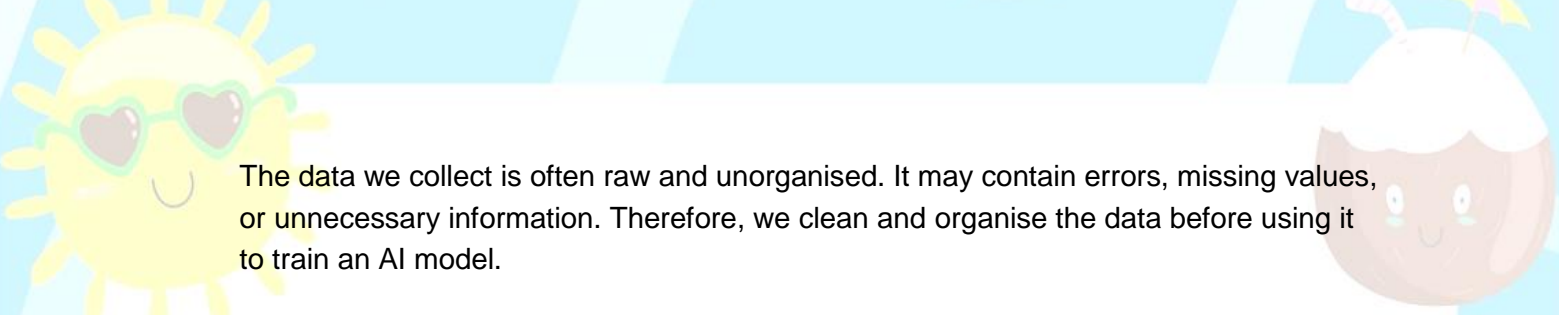
This step is called data collection.

Data Preparation:

For developing an AI system, we need a large amount of data. However, during the data collection, the data we usually collect is raw or unorganised.

It may contain:

- **Missing values** are the data points that are not recorded, empty or unavailable in a dataset
- **Duplicate entries** are the data points that are repeated more than once in a dataset
- **Incorrect information** are data points that are incorrect and inaccurate
- **Irrelevant data** are data points that are not related or useful to the given problem



The data we collect is often raw and unorganised. It may contain errors, missing values, or unnecessary information. Therefore, we clean and organise the data before using it to train an AI model.

The following steps are commonly used during the data preparation:

Data Cleaning:

- Remove errors or irrelevant data
- Fill missing values
- Remove duplicate data



Data Formatting:

- Convert text into number (if required)
- Arrange data in a spreadsheet neatly

Data Labelling:

- Assign correct categories (e.g., Spam/Not Spam, Pass/Fail)

3. Model Development and Training:

After the data collection and preparation, the next step is AI model development and its training. Model development means creating an AI model that solves the problem defined in stage 1. An AI model works like the brain of the system. It learns from data and uses that learning to make predictions.


Think of it like this:

You are a teacher, and the AI model is your student. The data is your textbook. You teach the student (the model) by showing it examples from the textbook (the data). Over time, the student learns the patterns and can answer questions on its own.

Let us look at the previous example whether a student will score more than 75% or not. Create an AI model to address this issue by using the following data to learn from past students:

- Study hours
- Attendance
- Test marks
- Participation in class

This learning process of a model is known as **model training**.



The model will learn from the information of student 1, student 2, and student 3 and find the relationship between these students. It might notice that students with attendance above 75% usually score well. Or that students who study less than 2 hours rarely cross 75%. It's like the model is connecting the dots!

4. Model Evaluation and Refinement

After training, the model is tested using new data to check how well it works. Its performance is usually measured by accuracy, which shows how many predictions are correct.

Testing means checking the model using a test dataset. A test dataset is a set of data that was not used during training. It helps us understand how well the model performs on new, unseen data.

Think of it like this:

You taught your friend how to identify birds using a book with 10 pictures. Now you show them 5 new bird pictures they have never seen before. If they correctly identify 4 out of 5, their accuracy is 80%.

In the same previous example of predicting whether a student will score more than 75% marks in the exam or not, the accuracy of these predictions largely depends on the quality of the data used to train the model.

Let us consider from our training, the model learned that a student would get more than 75% if they have:

- More than 80% attendance
- Study more than two hours
- Get more than 75 on tests
- Participate in class

If not, the student will likely score below 75%. Now, this trained model will work for two new students, student 4 and student 5. Based on what it learned, the model predicts that student 4 will get more than 75%, but student 5 will get less than 75%.

Students	Attendance	Study Hours	Test Marks	Participation	Final Result
Student 4	82%	2.5 hours	77	Yes	Above 75%
Student 5	70%	1.5 hours	62	No	Below 75%

The model correctly predicts for 2 out of 2 students, so the accuracy of the developed model is 100%. Great job, model!

Suppose there are 10 students during the model evaluation, and the developed model correctly predicts for 7 of them. Then the model's accuracy is 70%.

There may be a condition: if our model correctly predicts only 2 out of 10 students, then its accuracy is only 20%. In this case, **model refinement** is required.

Model Refinement: Model refinement means improving the model when it does not give satisfactory results.

We can improve the model by making changes as given below:

- Adding more data
- Removing incorrect data
- Changing model settings
- Training the model again



This process continues until the model performs well.

5. Model Deployment:

After the model has been trained, tested, and refined, the next stage is to deploy it in real-world use. It means the model is now ready for use :

- Take the input data (e.g., images, signals, or voice)
- Make prediction
- Help users in the real situation

It is like graduation day for your AI. It has learned, it has passed its tests, and now it's time for it to get a job!

In the previous example, a model is developed to predict whether a student will score more than 75%. This model can be **added or deployed** to a school software system after evaluation. The teacher enters the student information (like study hours, attendance, etc.) and then the system predicts the result of which students will score more than 75% and who will not.

Real-life examples of deployment:

- Spam detection in email apps
- Recommendation system in shopping apps
- Voice assistant
- Face unlock in smartphones

6. Monitoring and Maintenance

After the model is deployed and in use in the real world, the next key step is **Monitoring** and **Maintenance**. Monitoring is the continuous checking of the performance of the deployed AI model whereas Maintenance is to update the model to keep it accurate and efficient over time.

It regularly checks the following essential tasks:


- Is the system working correctly?
- Is the model giving the correct prediction?
- Has the accuracy remained the same or decreased?

In the previous example of score prediction, after some months or years, the model accuracy may have reduced because:

- Study pattern may change
- The exam pattern may change
- New types of questions may be introduced

If the deployed model is monitored regularly, it can help identify when it is not working properly or when its accuracy reduces. In such cases, the model needs to be updated or improved.

The model can be updated by:

- Adding new data
 - Retraining the model
- 

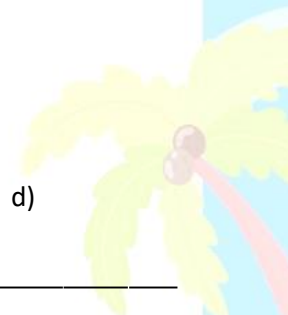
- Fixing the errors
- Improving performance

Points to remember:

- ✓ AI systems learn from data.
- ✓ A clear problem must be defined before building an AI system.
- ✓ AI models identify patterns in data.
- ✓ AI projects follow a step-by-step lifecycle.
- ✓ AI systems improve over time with more data.

Exercise

A. Multiple Choice Questions.

1. AI learns from:
a) Magic Guessing b) Luck c) Data d) 

2. In spam detection, the AI problem is to:
a) Send emails b) Write emails c) Delete all emails d) Identify spam emails

3. The first stage of a project cycle is:
a) Defining the problem b) Data collection c) Model development d) Model deployment

4. If an AI model predicts 8 out of 10 spam emails, the accuracy of the model is:
a) 50% b) 20% c) 80% d) 100%

5. AI model improves because:
a) It thinks like a human b) It has feelings c) New data is added d) It gets angry

B. Fill in the blanks.

1. AI learns by finding _____ in data.
2. An AI project follows a _____ cycle.
3. Spam emails often contain suspicious _____.
4. After testing, we _____ the system.
5. AI cannot work without _____.

C. Short answer questions.

1. How does AI learn?
2. Why is defining the problem important in an AI project?

3. What happens in the testing stage of an AI project?
4. What is meant by accuracy in AI?
5. Give one real-life example of an AI project.

D. Think and apply.

1. Imagine you are building an AI system to detect fake news.

Fill the table:

Stage	Your Answer
Define the problem	_____
Collect data	_____
Test AI tools	_____
Reflect and improve	_____

2. An online shopping company wants to build an AI system to predict whether a product will be delivered

on time or late.

To build this system, the company collects the following data from previous orders:

Order No.	Distance	Weather	Traffic	Delivery Partner	Final Status
01	5 km	Clear	Low	Experienced	On Time
02	20 km	Rainy	High	New	Late
03	10 km	Clear	Low	Experienced	On Time
04	15 km	Rainy	High	New	Late

After training, the model learned from the following pattern and delivery will be on time, if:

- Distance is less than 10 km.
- Weather is Clear
- Traffic is Low
- Delivery partner is experienced

Based on the learned pattern, complete the following table.

Order No.	Distance	Weather	Traffic	Delivery Partner	Final Status
05	8 km	Clear	Low	Experienced	_____
06	18 km	Rainy	High	New	_____

PHYSICAL EDUCATION

(Practical Manual)

(A) Choose Any two Game

Kho- kho, hand ball, Basketball, Badminton, Volleyball and

1. History

2. Latest rule of the game

3. Terminology Only 5

4. Fundamental skills only 5

5. Important tournament

6. Playing field and equipments

(B) YOGA (page no.101 to 107).

History , Standing asanas, Sitting asanas, Lying asanas paste pictures related with asanas

G.K

1. Name 5 Indian scientists and their contributions.

2. Note down the current affairs in your notebook of Gk.

* Current affairs should be date wise.

* Current affairs should be related to national and international issues.

3. Write down an editorial on Artificial intelligence as career after completion of formal study.

* What are benefits and draw backs of Artificial intelligence ?

* How an artificial intelligence helps us as career opportunity?

* An editorial should be of 250 words.

* Paste the picture related to the topic.

4. Role play activity

* Assume you are a reporter.

* Frame questionnaire related to Environmental issues.

(Causes of environmental changes, pollution and impact on children and old age person)

* Ask the questions from your relatives, elders and friends.

* Prepare a video clip of interaction for 2:30 minutes.

ART & CRAFT

Creative Hanging Craft

Few Guidelines-

The width should not be more than 8 inches and the height should not be more than 16 inches

Use only pastel sheet and ivory sheet for Tri colour

Students can use waste material or craft materials for the decoration of the hangings







❁ Eco Club Summer Green Mission ❁

Theme for the Session

“Small Green Steps, Big Future Changes”

Eco Club Slogan

“Save Nature Today, Secure Tomorrow.”

Event Name

❁ “My Kitchen Garden Mission” ❁

Activity Details

Students will create a small kitchen garden at home using any one of the following:

- Pots
- Recycled bottles
- Trays
- Balcony space
- Terrace area
- Backyard soil

Students may select and grow:


- Coriander
- Mint
- Spinach
- Tomatoes
- Chillies
- Fenugreek
- Basil
- Any other seasonal vegetables/herbs

Student Tasks

Students Will Submit an Observation Report on an A4 Sheet:

📷 Paste 1–2 photographs while planting.

📝 Write about:

- Weekly growth record
 - Plant grown
 - Duration taken for growth
 - Challenges faced during gardening
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