

**THE S D VIDYA SCHOOL, NOIDA**  
**SUMMER HOLIDAY HOMEWORK (2023-24)**  
**CLASS IX**

Dear students,

**“Self-belief and hard work will always earn you success.”**

Holidays provide a much-needed respite from the daily routine and academic pressure. It allows you to unwind, spend quality time with family and friends, and engage in activities you love. Balancing holidays and studies is a crucial aspect of a student's life. While they are meant for relaxation and enjoyment, it is equally important to maintain a certain level of focus on studies during these breaks. By setting realistic goals and creating a conducive study environment, you can effectively utilize holidays to consolidate knowledge, enhance skills, and stay academically on track. Moreover, incorporating breaks and leisure activities into your study routine can help to maintain focus, reduce stress, and make study sessions more productive. Ultimately, by finding the right balance between holidays and studies you can enjoy the break while also making progress in your academic journey.

**KEEP IN MIND TO:**

- Pray to the Almighty daily and thank Him for the blissful life that you enjoy.
- Give prime importance to your health.
- Set and maintain a routine at home. Be a good time manager.
- Practice positive thinking and be grateful for what we have.
- Relax, listen to music, or read books.
- Be a helping hand to your parents and learn the skill of shared responsibility.

**MOST IMPORTANT:**

- Make sure that all the syllabus done by May is revised thoroughly.
- Complete the assignments.

**REMEMBER:**

**“THE FUTURE BELONGS TO THE COMPETENT. GET GOOD, GET BETTER, BE THE BEST!”**

**Wishing all the students a joyful learning and happy holidays.**

## **SCIENCE**

Project of all the Science subjects - Physics, Chemistry and Biology should follow the following format:

1. Title of the Project
2. Certificate
3. Acknowledgement
4. Index
5. Introduction of the Topic
6. Description
7. Creative work if any
8. Bibliography/ References

Project should be done on light coloured A-4 size sheet.

Roll No 1 to 12- will do Biology project

Roll No 13 to 24- will do Physics project

Roll No 25 to 35- will do Chemistry Project

All assignment sheets should be solved by each child.

## **CHEMISTRY**

### **TOPIC – METALS AND NON- METALS**

i) Introduction to metals, nonmetals and alloys (Physical properties). Write the exceptional cases of metals and non-metals.

ii) Compare mineral resources of Arunachal Pradesh with Uttar Pradesh.

iii) Use your creativity to design a game of symbols of elements and their atomic number.

iv) Attachments

Reference link:

<https://databank.nedfi.com/content/mineral-resources-1> (mineral resources of Arunachal Pradesh)

<https://www.jagranjosh.com/general-knowledge/list-of-mineral-resources-found-in-uttar-pradesh-1539697220-1> (mineral resources of Uttar Pradesh)

<https://youtu.be/Jz4I8PqXaz8> (model of symbol of elements and atomic number)

### **CHEMISTRY (ASSIGNMENT)**

#### **CHAPTER – MATTER IN OUR SURROUNDINGS**

Choose the correct answer

- 1 Which one of the following sets of phenomena would increase on raising the temperature?
  - (a) Diffusion, evaporation, compression of gases
  - (b) Evaporation, compression of gases, solubility
  - (c) Evaporation, diffusion, expansion of gases
  - (d) Evaporation, solubility, diffusion, compression of gases
- 2 Seema visited a Natural Gas Compressing Unit and found that the gas can

be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions

- (a) Low temperature, low pressure
  - (b) High temperature, low pressure
  - (c) Low temperature, high pressure
  - (d) High temperature, high pressure
- 3 The property to flow is unique to fluids. Which one of the following statements is correct?
- (a) Only gases behave like fluids
  - (b) Gases and solids behave like fluids
  - (c) Gases and liquids behave like fluids
  - (d) Only liquids are fluids
- 4 A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement?
- (a) Water, air, wind
  - (b) Air, sugar, oil
  - (c) Oxygen, water, sugar
  - (d) Salt, juice, air
- 5 The boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C, 56°C and 118°C respectively. Which one of the following correctly represents their boiling points in kelvin scale? (a) 306 K, 329 K, 391 K
- (b) 308 K, 329 K, 392 K
  - (c) 308 K, 329 K, 391 K
  - (d) 329 K, 392 K, 308 K
- 6 Which condition out of the following will increase the evaporation of water?
- (a) Increase in temperature of water
  - (b) Decrease in temperature of water

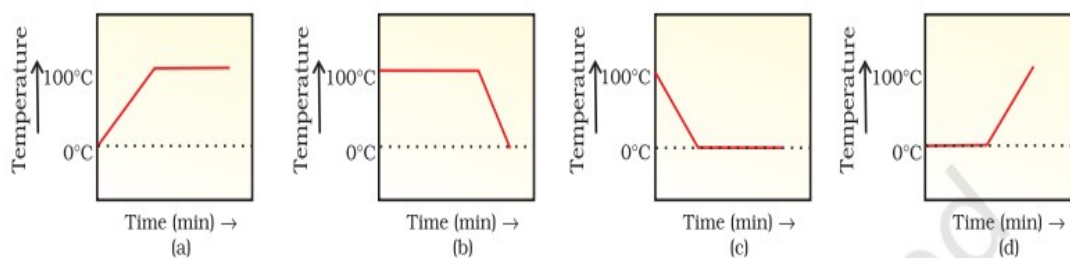
- (c) Less exposed surface area of water
  - (d) Adding common salt to water
- 7 In which of the following conditions, the distance between the molecules of hydrogen gas would increase?
- (i) Increasing pressure on hydrogen contained in a closed container
  - (ii) Some hydrogen gas leaking out of the container
  - (iii) Increasing the volume of the container of hydrogen gas
  - (iv) Adding more hydrogen gas to the container without increasing the volume of the container
- (a) (i) and (iii)
  - (b) (i) and (iv)
  - (c) (ii) and (iii)
  - (d) (ii) and (iv)
- 8 During summer, water kept in an earthen pot becomes cool because of the phenomenon of
- (a) diffusion
  - (b) transpiration
  - (c) osmosis
  - (d) evaporation
- 9 Choose the correct statement of the following
- (a) conversion of solid into vapours without passing through the liquid state is called sublimation. (b) conversion of vapours into solid without passing through the liquid state is called vapourisation..
  - (c) conversion of vapours into solid without passing through the liquid state is called freezing.
  - (d) conversion of solid into liquid is called sublimation.
- 10 On converting 25°C, 38°C and 66°C to kelvin scale, the correct sequence of temperature will be
- (a) 298 K, 311 K and 339 K
  - (b) 298 K, 300 K and 338 K

(c) 273 K, 278 K and 543 K

(d) 298 K, 310 K and 338 K

Answer the following questions:

- 1 A sample of water under study was found to boil at  $102^{\circ}\text{C}$  at normal temperature and pressure. Is the water pure? Will this water freeze at  $0^{\circ}\text{C}$ ? Comment.
- 2 Alka was making tea in a kettle. Suddenly she felt intense heat from the puff of steam gushing out of the spout of the kettle. She wondered whether the temperature of the steam was higher than that of the water boiling in the kettle. Comment.
- 3 (a) Conversion of solid to vapour is called sublimation. Name the term used to denote the conversion of vapour to solid.  
(b) Conversion of solid state to liquid state is called fusion; what is meant by latent heat of fusion?
- 4 A student heats a beaker containing ice and water. He measures the temperature of the content of the beaker as a function of time. Which of the following (Fig. 1.1) would correctly represent the result? Justify your choice.



**Fig. 1.1**

- 5 Write different methods involved in the separation of mixture of ammonium chloride, common salt and sand.

## **BIOLOGY**

### **TOPIC- WATER -AN IMPORTANT RESOURCE**

- i) Chemistry of water.
- ii) Why water is said to be an important resource.
- iii) Compare rainfall of Arunachal Pradesh with Uttar Pradesh also Show through a poster the main causes of water pollution in the above mentioned states.

<https://www.encyclopedia.com/environment/encyclopedias-almanacs-transcripts-and-maps/chemistry-water>

<https://www.unep.org/explore-topics/water/why-does-water-matter>

## **BIOLOGY - (ASSIGNMENT)**

### **CHAPTER – THE FUNDAMENTAL UNIT OF LIFE**

- 1** Do you agree that “a cell is a building unit of an organism”. If yes, explain why?
- 2** Why does the skin of your finger shrink when you wash clothes for a long time?
- 3** Why is endocytosis found in animals only?
- 4** A person takes concentrated solution of salt, after some time, he starts vomiting. What is the phenomenon responsible for such situation? Explain.
- 5** Name any cell organelle which is non membranous.
- 6** If you are provided with some vegetables to cook. You generally add salt into the vegetables during cooking process. After adding salt, vegetables release water. What mechanism is responsible for this?
- 7** If cells of onion peel and RBC are separately kept in hypotonic solution, what among the following will take place? Explain the reason for your answer.
  - (a) Both the cells will swell.
  - (b) RBC will burst easily while cells of onion peel will resist the bursting to some

extent.

(c) a and b both are correct.

(d) RBC and onion peel cells will behave similarly.

**8** Match the following A and B.

	A	B	
(a)	Smooth endoplasmic reticulum	(i)	Amoeba
(b)	Lysosome	(ii)	Nucleus
(c)	Nucleoid	(iii)	Bacteria
(d)	Food vacuoles	(iv)	Detoxification
(e)	Chromatin material and nucleolus	(v)	Suicidal bag

**9** Write the name of different plant parts in which chromoplast, chloroplast and leucoplast are present.

**10** Name the organelles which show the analogy written as under

(a) Transporting channels of the cell \_\_\_\_\_

(b) Power house of the cell \_\_\_\_\_

(c) Packaging and dispatching unit of the cell \_\_\_\_\_



- (d) Digestive bag of the cell \_\_\_\_\_
- (e) Storage sacs of the cell \_\_\_\_\_
- (f) Kitchen of the cell \_\_\_\_\_
- (g) Control room of the cell \_\_\_\_\_

- 11** How is a bacterial cell different from an onion peel cell?
- 12** How do substances like carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O) move in and out of the cell?
- 13** Name the two organelles in a plant cell that contain their own genetic material and ribosomes.
- 14** Why are lysosomes also known as “suicidal bags of the cells”?
- 15** Which cell organelle controls most of the activities of the cell?
- 16** Which kind of plastid is more common in
- (a) roots of the plant
  - (b) leaves of the plant
  - (c) flowers and fruits.
- 17** Why do plant cells possess large sized vacuole?
- 18** What are the consequences of the following conditions?
- (a) A cell containing higher water concentration than the surrounding medium.
  - (b) A cell having low water concentration than the surrounding medium.
  - (c) A cell having equal water concentration to its surrounding medium.
- 19** Draw a plant cell and label the parts which
- (a) determines the function and development of the cell

- (b) packages materials coming from the endoplasmic reticulum
- (c) provides resistance to microbes to withstand hypotonic external media without bursting
- (d) is site for many biochemical reactions necessary to sustain life.
- (e) is a fluid contained inside the nucleus.

- 20** a) Draw a neat labelled diagram of an animal cell.
- b) Draw a well labelled diagram of an eukaryotic nucleus. How is it different from nucleoid?

## **PHYSICS**

### **TOPIC- MUSIC and Monastic Practice of Buddhist Doctrine**

- (i) Production of sound, its frequency, wavelength and pitch
- (ii) Compare sound with noise
- (iii) Study about the different sounds produced in Buddhist monasteries of Taiwan (Arunachal Pradesh)

### **ASSIGNMENT (Motion)**

#### **Very Short Answer Based questions**

1. What is unit of acceleration?
2. What is zero uniform velocity motion?
3. A body moving in a circle with constant speed. Is it having acceleration?
4. A body goes from point A to B and then return then from B to A. what is the total displacement?
5. Acceleration is a vector quantity True or false?

6. What is the path of a velocity –time graph of a body moving with uniform acceleration
  7. What all ways the velocity of the body can be changed?
  8. What is average speed?
- True and False
9. Displacement can be zero but distance never.
  10. Time is a vector quantity
  11. If the velocity of the body decreases with time, the acceleration is negative (retardation), and the motion is called decelerated motion.
  12. The area of the velocity time graph gives displacement of the body.
  13. Acceleration is a scalar quantity
  14. Motion and rest are relative terms
  15. An object can be moving with Uniform speed but variable acceleration.
  16. Displacement magnitude can be greater than distance travelled by the object

### **Short Answer type**

17. A object goes from point X to Y and then come back from Y to X. What is the displacement and average velocity?
18. Write down the difference between Scalars and Vectors?
19. Four Cyclist A,B,C ,D starts at the same point and at the same time and move in a straight line to reach destination .They all move with uniform velocities. They reach the destination in the following order  
C→A→B→D  
Answer the following questions
  - a. If the displacement-time graph is plotted for each cyclist, which will be having highest slope
  - b. Arrange the cyclist in decreasing order of velocity
20. When an object is thrown upwards, what is true of velocity and acceleration at the highest point of motion of the object?

## **ENGLISH**

### **ART INTEGRATED ENGLISH PROJECT**

#### **TASK 1**

##### **Topic -Conventional school system versus Future school**

On the basis of your reading of the lesson 'The Fun They Had', elaborate in your own words the difference between school of 21<sup>st</sup> century and 22<sup>nd</sup> century(word limit :200 to 250 words) You can paste your own pictures taking online classes, in school uniform, school building, your teachers, books etc. to support the notion.

#### **TASK 2**

##### **Book Review**

Read one of the books written by Mulk Raj Anand and write your review on one of them. You must write 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) (100-120 words)
- Plot (100-120 words)
- Theme (20-30words)
- Whom did you like most in the story and why? (100 words)
- What happened at the end and how did you feel? (80-120words)
- If you were given a chance to play the role in the same story, whose role would you like to perform and why? (80 words)

- How would you replace the ending of the stories? (150 words)

## **WRITING ASSIGNMENT**

**[Assignments should be done in A4 size sheet and should be put in a file]**

1. Computers are a storehouse of knowledge and wisdom and they are hazardous too. Write an article on the topic 'The benefits and harms of computers. Word limit is 180-200 words.
2. You encountered two strange people. They were different from normal human beings but they were quite interesting and exciting. As Manish\Manisha, using your ideas, write a story in about 150-200 words narrating your experience with them.
3. Last year, you visited a fair with your family members. Taking cues from the lesson 'The lost child' write a diary entry describing your feelings when you realised that you were lost in the crowd and how you finally reunited with your family. Also, draw a colourful picture of the fair visited by you.

## **Portfolio Activity**

### **ITINERARY BROCHURE**

Research about places to visit in ARUNACHAL PRADESH and prepare an itinerary of places to visit describing the location, ways to reach there, weather, best time to visit, hotels, the flora and fauna, food, suggested activities, culture etc.

### INSTRUCTIONS:

- It should be handwritten.
- There should be 8-10 pages, where you may draw or paste some pictures associated with that place. Draw borders around the pictures if they are pasted. Give details about the same.
- There should be interesting and catchy HEADINGS above each detailed paragraph.

- Each picture in the brochure should have a CAPTION (i.e., a Photo caption, also known as cutline, a line of text used to explain and elaborate a photograph).

**SOCIAL SCIENCE**  
**ASSIGNMENT -1**  
**GEOGRAPHY**  
**INDIA-SIZE AND LOCATION**

Q1...Multiple choice questions:

1..... Which line divides India into approximately two equal parts?

- (a) Equator
- (b) Tropic of Cancer
- (c) Tropic of Capricorn
- (d) None of these

Question 8.

2.... What is the position of India in the world in respect of area?

- (a) 8th position
- (b) 7th position
- (c) 6th position
- (d) 2nd position

3.... Which of the following longitudes is selected as the Standard Meridian for India?

- (a) 68°7'E
- (b) 82°30'E

(c) 97°25'E

(d) 23°30'N

4.... Which of the following is the oldest route of contact between India and other countries of the world?

(a) Ocean routes

(b) Maritime contact

(c) Land routes

(d) Air routes

5...India achieved multi-faceted socio-economic progress during which of the following periods?

(a) Since ancient times

(b) During medieval period

(c) In the 21st century

(d) During the last five decades

Q2... Answer the following questions:

1.....What is latitude? What is the latitudinal extent of India?

2.... Which ocean is named after India? Give two reasons as to why it was named after India.

3.... How have been mountain passes been helpful in India since historic times? Explain.

4.... What was the contribution of land routes to India in ancient times? Explain.

**Map work:**

Locate and label the following items on the Political map of India.

- 1 The state which shares its boundaries with China, Nepal and Bhutan.
- 2 The state which shares its boundaries with both China and Pakistan.
- 3 The state having common land and sea boundary with Pakistan.
- 4 An Indian state that shares its boundary with Bangladesh and Myanmar.
- 5 Southernmost point of India

**PROJECTWORK**

Make PPT and scrap book on the tribal groups of Arunachal Pradesh

On the outline map of India label and locate Arunachal Pradesh on the same map mark and label tribal groups.

**SOCIAL SCIENCE****ASSIGNMENT -2****DEMOCRATIC POLITICS****WHAT IS DEMOCRACY? WHY DEMOCRACY?**

Q1.... Multiple choice questions:

1.... In any society, people are bound to have difference of opinions and interests. Which is a better way of dealing with these conflicts?

- (a) By brutal power exercised by the government
- (b) By allowing one group to dictate terms to others
- (c) By providing equal opportunities to all
- (d) By opting for a strong leader who should have all the powers.



2.... Some of the drawbacks of democracy are

- (a) instability and delays
- (b) corruption and hypocrisy
- (c) politicians fighting among themselves
- (d) all the above

3.... Which of these is permitted under the Rule of Law?

- (a) Prime Minister can be punished for violating the Constitution.
- (b) Police has a right to kill anybody.
- (c) Women can be paid lesser salaries.
- (d) President can rule for as long as he wants.

4.... Which of these statements is/are correct in the case of Zimbabwe?

- (a) Popular governments are always democratic
- (b) Popular governments can be undemocratic
- (c) Popular leaders can be autocratic
- (d) Both (b) and (c)

5.... The most common form that democracy takes in our time is that of

- (a) limited democracy
- (b) representative democracy
- (c) maximum democracy
- (d) none of the above

Q2.... Answer the following questions:

1.... How does democracy improve the quality of decision making?

2.... How does democracy enhance the dignity of citizens?

3.... Democracy cannot get us everything and is not the solution to all problems. Than why are we interested in democracy?

4.... What are the merits of a democratic government?

## HINDI HOLIDAY HOMEWORK

1. शिखरपरचढ़नेवालोंकोकिन-किनकठिनाइयोंकासामनाकरनापड़ताहै? एवरेस्ट-मेरीशिखरयात्रापाठकेआधारपरबताइए।
2. अंगदोरजीकेपाँवठंडेक्योंपड़जातेथे? एवरेस्ट-मेरीशिखरयात्रापाठकेआधारपरबताइए।
3. एवरेस्ट-मेरीशिखरयात्रापाठकेसन्दर्भमेंबताइएएवरेस्टअभियानदलकबरवानाहुआ?
4. एवरेस्ट-मेरीशिखरयात्रापाठकेआधारपरबताइएबछेन्द्रीपालनेएवरेस्टकीतरफक्यादेखा?
5. 'एवरेस्ट-मेरीशिखरयात्रा' पाठकेआधारपरबताइएजयलेखिकाकोदेखकरहक्का-बक्काक्योंरहगया?
6. एवरेस्टशिखरपरपहुँचकरबछेन्द्रीपालनेस्वयंकोकिसप्रकारसुरक्षितरूपसेस्थिरकिया?
7. एवरेस्ट :  
मेरीशिखरयात्रापाठकेआधारपरबताइएमईकीरातकोकैंपतीनमेंक्याघटनाघटीऔरएकअन्यसाथीनेलेखिकाकीजानकैसेबचाई?
8. एवरेस्टकीशिखरयात्रामेंकिन-किनलोगोंनेलेखिकाबछेन्द्रीपालकोसहयोगदिया?

## HINDI PROJECT

भारतीयपर्वतारोहियोंकेएवरेस्टकेसफरकोचित्रोंकेआधारपरलिखिए।एवरेस्टकीबर्फपर,  
तत्कालीनपरिस्थितिववातावरणमेंहोनेवालीपरिवर्तनोंसेक्याप्रभावहोरहाहैचित्रवतथ्योंकेआधारपरलि  
खिए।

## SANSKRIT HOMEWORK

### ग्रीष्मकालीनसंस्कृतगृहकार्य

- 1) अध्यायप्रथमसेषष्ठकेशब्दार्थोंसेएकशब्दकोशकानिर्माणकरेंतथाहस्तनिर्मितसञ्चिका  
(कापी) बनाए ।
- 2) विद्या,सत्संगति,नीतिपरआधारितचारश्लोकअर्थसहितलिखकरएकटाँगनेवालाचार्टबनाई  
ए ।
- 3) अकारान्त,इकारान्त,उकारान्त,ऋकारान्तपुल्लिंगआकारान्तईकारान्तऋकारान्तइकारा  
न्तस्त्रीलिंगशब्दरूपोंकोलिखकरयादकीजिए ।
- 4) उपपदविभक्तियोंकोलिखकरप्रत्येककेदो-दोवाक्यलिखें ।
- 5) पा,दा,स्था,गम,गै(गाय),नम,अस्,कृधातूओंकेपाँचौलकारोंमेंरूपलिखिए ।

## MATHEMATICS

SOLVE THE FOLLOWING QUESTIONS

Q.01- Solve the following and find 3 rational between

I)  $1/3$  &  $1/2$

II)  $-2$  &  $0$

Q.02- Write 2 rational numbers between  $2/3$  &  $5/6$

Q.03- Which of the following decimal have terminating

I)  $7/20$

II)  $2/13$

III)  $23/7$

IV)  $133/125$

Q.04- Express these in the form of  $p/q$

I)  $0.\bar{6}$  (Bar 6)

II)  $0.\bar{27}$  (Bar 27)

III)  $3.\bar{7}$  (Bar 7)

Q.05- Identify that following are rational or irrational

I)  $\sqrt{121}$  (Root 121)

II)  $(3+\sqrt{5})-\sqrt{5}$

III)  $2\sqrt{27} / \sqrt{3}$  (Root 27 & root 3)

IV)  $\sqrt{135}$  (Root 135)

V)  $1.\bar{21}$  (Bar 21)

VI)  $1.101001000\dots\dots$

Q.06- Rationalise

I)  $\sqrt{5} / \sqrt{3+\sqrt{2}}$

II)  $2+\sqrt{3} / \sqrt{7-\sqrt{2}}$

III)  $4 / \sqrt{7+\sqrt{3}}$

Q.07- Find the value of a & b, if

I)  $\sqrt{3}-1 / \sqrt{3}+1 = a+b\sqrt{3}$

II)  $\sqrt{3}+2 / \sqrt{3}-2 = a+b\sqrt{2}$

III)  $\sqrt{7}-1 / \sqrt{7}+1 - \sqrt{7}+1 / \sqrt{7}-1 = a+b\sqrt{7}$

Q.08- Simplify the following

I)  $(\sqrt{2}+2)^2$

II)  $(2-\sqrt{2})(2+\sqrt{2})$

III)  $(\sqrt{2}+\sqrt{3})^2$

Q.09- Find the remainder when  $(y^3+y^2-2y+5)$  is divided by  $(y-5)$  with the division method.

Q.10- Find the remainder when the polynomial  $(x^4-3x^2+2x-5)$  is divided by  $(x-2)$  by the remainder theorem.

Q.11 Write the coordinates of a point on x-axis at a distance of 6 units from the origin in the positive direction of x-axis and then justify your answer.

Q.12 If the coordinates of two points are P (-2, 3) and Q (-3, 5), then find (abscissa of P) – (abscissa of Q).

Q.13 Without plotting the points indicate the quadrant in which they will lie, if i. Ordinate is -3 and abscissa is -2 ii. Abscissa is 5 and ordinate is -6

Q.14 Plot the points A (5, 5) and B (-5, 5) in the Cartesian plane. Join AB, OA and OB. Name the type of triangle so obtained.

Q.15 Find the coordinates of the point i. which lies on both x and y-axis. ii. whose abscissa is 5 and lies on the x-axis. iii. whose ordinate is -4 and lies on the y-axis.

Q.16. Thrice the cost of a kettle is equal to five times the cost of an oven. Write a linear equation in two variables to represent this statement.

Q.17: Draw the graph of the equation  $y = mx + c$  for  $m = 3$  and  $c = -1$  (a straight line in the Cartesian plane). Read from the graph the value of  $y$  when  $x = 2$ .

Q.18: If  $x$  is the number of hours a labourer is on work and  $y$  is his wages in rupees, then  $y = 4x + 3$ . Draw the work wages graph of this equation. From the graph, find the wages of a labourer who puts in 4 hours of work.

Q.19: Ram is half of his father's age. Twenty years ago Ram's father was six times the age of Ram. Find the present ages of Ram and his father.

Q.20: Find the coordinates of the points where the line represented by the linear equation  $y = 2x - 4$  intersects x-axis and y-axis.

## PROJECT WORK

Art Integration Project

Topic: Data Handling

Prepare a Portfolio on Arunachal Pradesh by including the following topics:

1. Bar graph of population from 2015 to 2020.
2. Religious population of Arunachal Pradesh.
3. Male and Female Ratio (Pie chart).

For reference use the following links:

1. <https://youtu.be/G3qY94InTkM>
2. <https://youtu.be/jf217TxA7o8>