

Dear Parents, It is summer vacation, a time to relax as well as fruitfully occupy the children in various scholastic and co –scholastic areas. Kindly motivate and lend support to your children and ensure that they complete the work well in time and to the best of their ability. Your encouragement can actually make a huge difference to the learning outcomes.

Dear Children, We are sure that all of you must be excited for your holidays. We wish that you enjoy every minute of this long break with your family and friends. It will be great if you are able to find time to learn new things, readas many story books as you can,tap into new hobbies, do yoga, meditation and exercise, grow plants, draw, paint, dance, sing and even help your parents and grandparents.

True, it is time for fun and frolic and although enjoyment is intrinsic, we believe in nurturing the mind and body. So we have put together a variety of fun-filled activities and worksheets that we hope will keep you occupied

during this time. Do them neatly and submit the worksheets to your teachers after the vacation.

We wish you a fun filled summer break, full of activities.

General instructions:-1) Attempt your work neatly.

2) Use sheets or old notebooks (whichever is available) to do the worksheets.3) Write your Name, Class-section and assemble all the sheets Subject-wise in one folder

CLASS -7th

Note. We are attaching a few interesting activities and assignments which you are expected to do during the break. This will also help you keep occupied while you are in lockdown. Write neatly and present your work well .Have lots of fun and indoors and take good care of yourself. All project work have done A4 sheet.

G.K-

1. Make a chart on our allPrimeMinister with their picture and period of service.

2. Complete page number 17 to 27 in your GK book knowledge encyclopaedia.

3. Collect some picture of seven wonders in the world and paste them in A4 sheet.

SOCIAL STUDIES

1.Collect some information about the Turkish invasions. Find out the places from where they came and the places they raided .Also find out the wealth they took with them from India and how they put it to use.2.Find the differences between the temple of the mediaeval period and the temple of your neighbourhood and does compare them.

3. Collect more information about the Tughlaq dynasty and make a project.

CLASS-7	CALENDER MAKING ACTIVITY-ON TRADITIONAL DANCES OF SIKKIM	JUNE TO DECEMBER MONTHS HAVING THE PICTURE OF ANY ONE DANCE FORM	
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PROJECT WORK

LET'S RE- LIVE THE PAST

"True leaders don't create followers... they create more leaders"!





PARAMETERS OF PROJECT

- BIRTHPLACE AND CHARACTER SKETCH
- COUNTRY AND TENURE
- MAJOR POLITICAL POLICIES
- ACHIEVEMENTS AND AWARDS

BOOKS WRITTEN BY HIM/HER

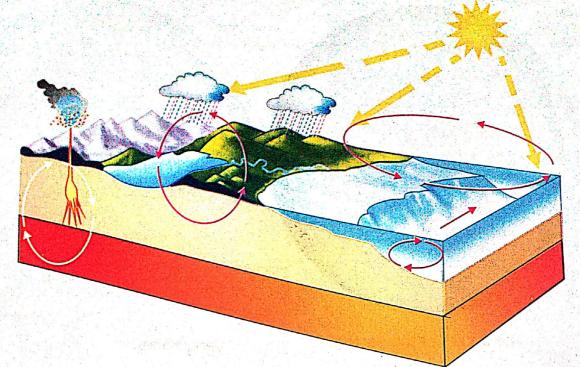
NAME OF LEADER ROLL NO. 1. JAWAHARLAL NEHRU 1-8 2. NELSON MANDELA 9-16 3. INDRA GANDHI 17-24 4. VALADIMIR LENIN 25-32 5. ABRAHAM LINCOLN 33-40 6. BARAK OBAMA 41 ONWARDS

NOTE - STUDENTS WILL DO THIS PROJECT IN SCRAP FILE WITH CREATIVITY. MAP SKILLS

"Let's Learn Map Skills"

A) On an given political map of world identify the 5 major worst affected Countries of Corona Virus in world-

COMPONENTS OF THE ENVIRONMENT

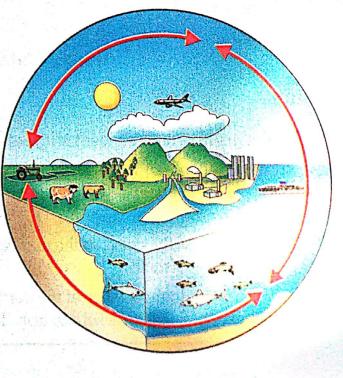


Activity Time -----

Attempt the following questions :

- 1. Label the feature names of environment in the above diagram.
- 2. What are the major spheres of environment?

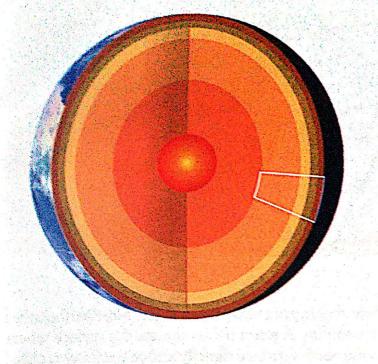
- 3. Which sphere includes the rocks or the surface of the earth?
- 4. Label the diagram of biosphere appropriately.
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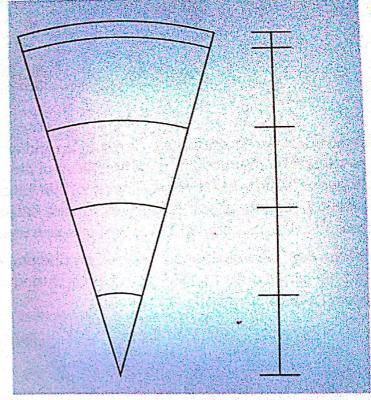




STRUCTURE OF THE EARTH







ctivity Time =

Attempt the following questions :

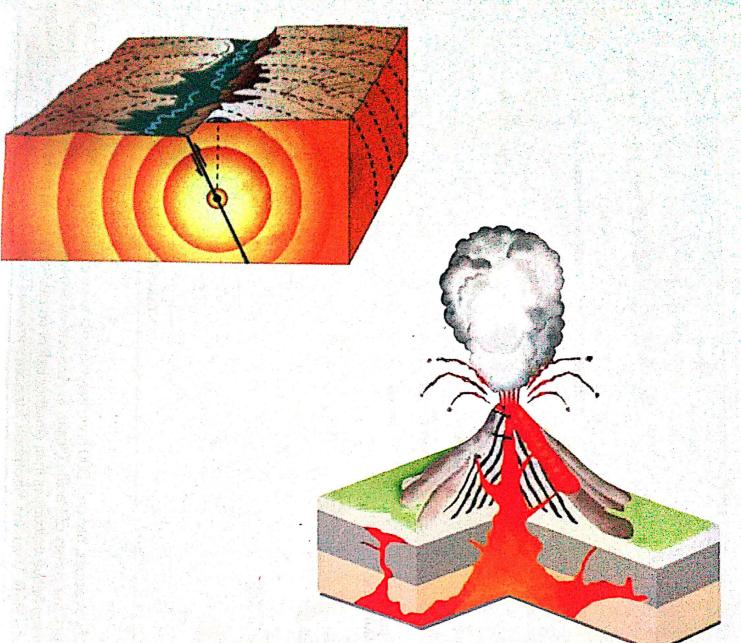
- 1. Label the above diagrams.
- 2. What are the major structural units of the earth? Give a brief account.

3. What is the thickness of the crust and the uppermost solid mantle?

4. Which are the outermost layers of the earth?



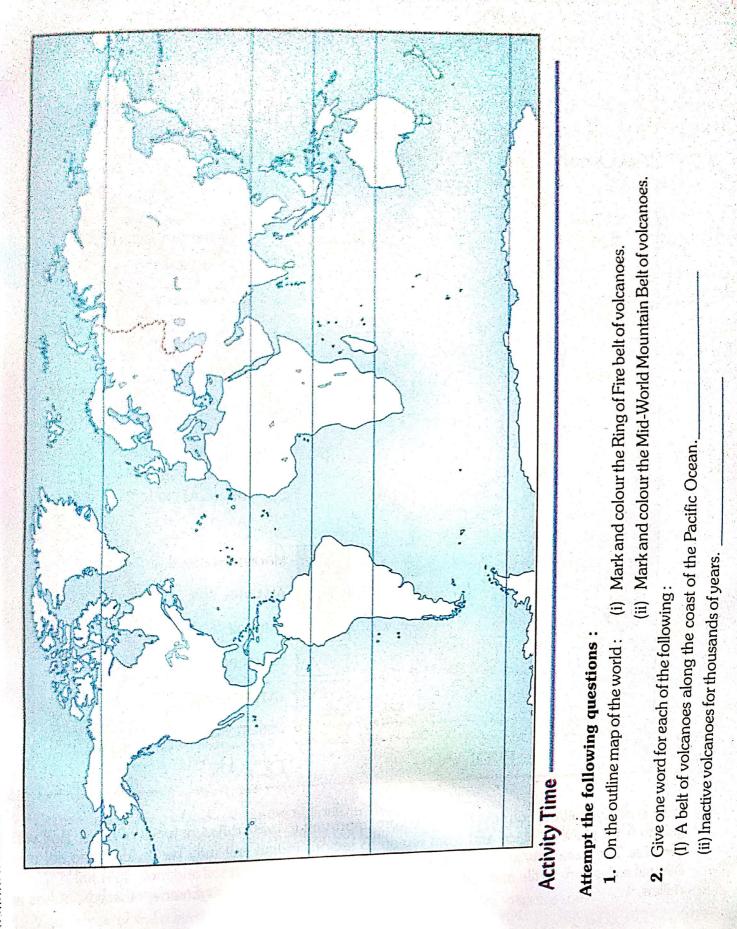
EARTHQUAKES AND VOLCANOES



Activity Time

Attempt the following questions :

- 1. Label the diagram how an earthquake originates as shown in above picture.
- 2. Label the diagram of a volcano shown above.
- 3. Which scale is used to measure the intensity of earthquakes?
- 4. Which materials erupt from a volcano?
- 5. What type of damages are caused by an earthquake?



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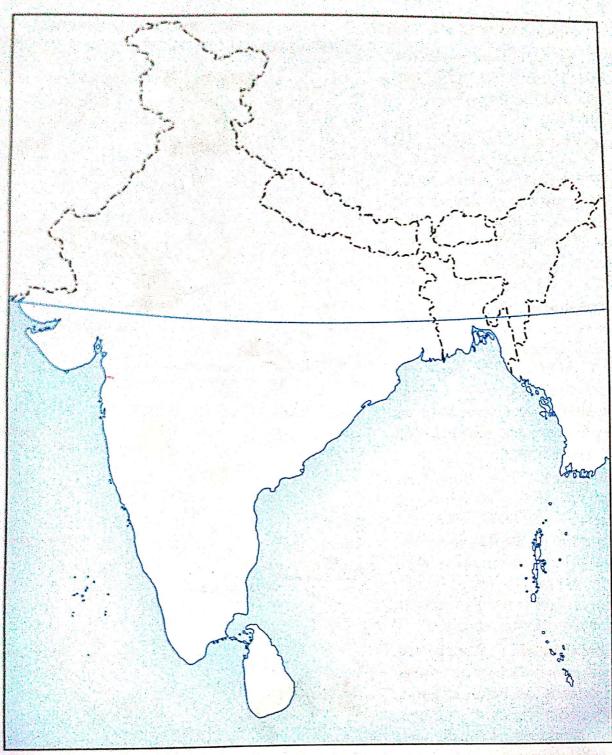
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VOLCANIC REGIONS AND LAVA PLATEAUS

WORLD :

MALLAN A mad minimum Mid-World Mounta history

NDIA : MAIN TYPES OF SOILS



tivity Time

ri

Attempt the following questions :

- 1. On the outline map of India show the regions having :
 - (i) Alluvial Soil (ii) Black Soil (iii) Red Soil (iv) Laterite Soil (v) Desert Soil (vi) Mountain Soil

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- a 2. What kind of crops can be grown in alluvial soil?
- 3. What kind of crops can be grown in black soil?
 - 4. Which type of soil is least fertile and what kind of plants can be grown in such a soil?

Page Ne. Date हिन्दी केशाः नः विषयः-में से किसी सक प्रश्तों विषय पर 2 मिनट का मन्द्रम् 1 आंधु भाषन तैयार करें, जिसें त उसे रिकारे 23:--केरोता (रत) कीरेना वारस और प्रकृति (ग) कोरोना कहन (d) वायस्य उपार्थिक मंदी उनपनी भावनाओं को ठ्यमन करनेका डागरी लेखन प्रस्त:2 अनुसार निरुवना भी दिनच्यां को दिनेम के हैं उनपती ही। उस्तः अपने किन्हीं लगमर 2 दिनो लस्वन कहलामा में सुन्दर ਦੇਂਦਰ लिसी ्र्संहीप अनुप्रवों ant मं कार्य - पुरित्मा पाठ-2 बकरी दी गीपसागहे H वसन्त X0-3. में अक्र के विषय बादशाह 24 Rezi \$ AD वह रम्द उदार राजा था। जिससे पता -रोले लिख 15 सुन्दर कहोती +चांर सार and अधिक प्रिय आपको पशु 211 कोत मरत-4. aiti अपनी प्रमा पुश्तिका 과 1 372-की जिस :-06F 212 15016 ab 51350 8-21 01/HX01= 22 1 जापान -(F) उच्चरत-(ख) 28 (可) दुर्दस्ता ET) परेक्षा 3.) BAHADIZ -(1) Portal: 21021 त्रसम 2102 2 स्तिर्गे 112 -(2) विसील (ch) K.) 210 -चर (2) (4) सुबह-ERT (IT) करी-पूर्ति 3 चित रिक्त से र-पाती 21021 dil की 101 क्रमबद्ध समूह dhE (45) 32211201 dity d की 80) हिन्दी में हा, त्र, जा, त्र out the ment (JT) 2 ZAK 87, 2, 3,72 e) देश के कार्या लगें मोरे रघ-कान में होता है। 1 की _____ कहत है। का प्रयोग 8.1 देनीय 2141 नग की स्यात करता है। आपा 21981 224 67

Page Mg. Date अाध्यकालीन आवकाश ग्रीह कार्य इसीरकृत सुरभी पुस्तक क प्रथमः पाठः - प्राथना के बलोक कंठरूप याद करो। (हिन्दी अपसित) कंठरूप याद करो। (हिन्दी अपसित) किंठित आखरा के सरता की पढ़कर कोई दस कंठित आखरा के अर्थ जिला। समय के महत्व के विषय में अनुत्धेद रम्स्कृत मापा में जिलें। हतीयः पाठः अर्थवियः अ स्थिय का स्टेस् स्तिन्ते। दस परित्यां संस्कृत में जिलें। चतुर्थः पाठः अभेमनं इसीरवकम् को पढ़कर भिन्त- भिन्न खाय पदार्थ के नाम संस्कृत भाषा में जिलें व याद करी र्शन कृत dratt:-7-संस्कृ गामरगः शाख रूपः अमरान पुल्तिंग शाव्द - वालः (वेच्या) त्रश्मरान पुल्लिंग शब्द - पितृ (पिता) उच्चारण के साथ याद करके लिखें। द्यात रन्प ३ कु द्यापु (लटू लमहू व लोट लकार) याद करोव कु द्यातु का प्रयोग करते हुए वास्य बनाओं।



Science

Note: Do the following work in the Separate Science Holiday Homework Notebook.

Q1. Choose the correct answer.

- a) Which of the following show symbiosis?i) Alga and fungusii) Alga and fish iii) Rhizobium and money plant
- b) Rain gauge is used to measure_____. i) Humidity ii) Rainfall iii) Temperature
- c) Name the most common variety of silk. i) Tassar Silk ii) Mooga Silk iii) Mulberry Silk

Q2. Match the following:

Column A

- 1. Mouth
- 2. Stomach
- 3. Small intestine
- 4. Liver

Column B

a. Absorption of nutrients

- b. Saliva
- c. Bile
- d. Hydrochloric acid

Q3. Answer the following:

- a) Define nutrition. Differentiate between autotrophic and heterotrophic nutrition.
- b) A simple pendulum takes 30 seconds to complete 15 oscillations. Calculate the time period of the pendulum.
- c) 'A' is the covering of silk fibres that completely covers the caterpillar. Identify 'A'. What are silk fibres made up of?

Q5 Fill in the blanks:

- a) The distance moved by an object in a unit time is called _____
- b) Crop plants require a lot of nitrogen to make_____.
- c) Llama and alpaca also yield_____



- 1. Draw a poster on A4 size sheet to show the 'Effect of destruction of forest'
- 2. Gather information on the different types of silk found in different states of India. Collect pictures or samples of different type of silk fabrics. Identify the states where the type of silk is made. Draw a map of India on a chart paper and paste the samples on the map.
- **3.** Draw neat and well labeled diagrams of the following on A4 size sheet:
 - a) Amoeba
 - b) Life cycle of a silk moth
 - c) Photosynthesis with Stomata.

Learning and Reading Work:-

Read Chapter-1,2,3 Thoroughly,

Learn all the oral and back exercise question several times.

M. D. SR. SEC. SCHOOL, MANKROLA (GURUGRAM)

CLASS- 7th HOLIDAY HOMEWORK (2020-21)

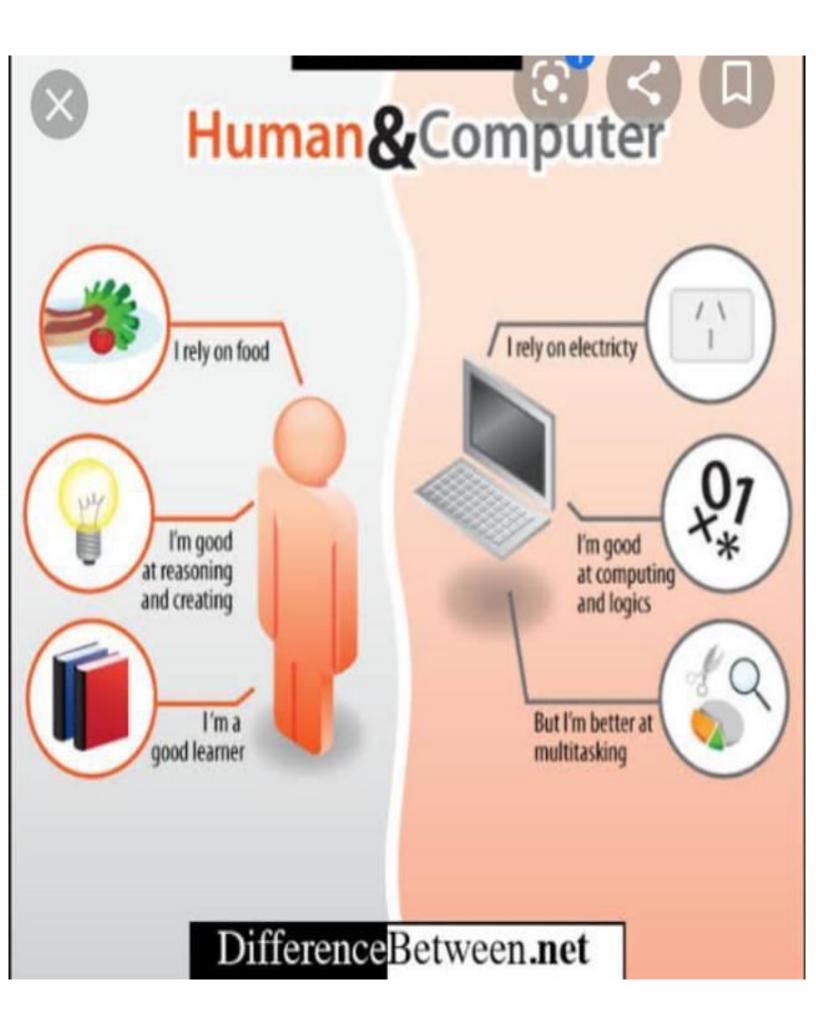
SUBJECT:-COMPUTER

- NOTE:- 1. Do all the homework according to the given instructions.
 - 2. It should be done in a neat handwriting.
 - Write the Chapter 1 and Charter 2 Exercise Time, Objective Zone, Written Zone and Questions / Answer in your computer Book and Notebook.
 - Make your chapter wise Flow Chart.
 - Written text should be supported with handmade Image Or Flow Chart.
 - Work should be appropriate &neat.

Activity:- Topic (Computer Fundamental)

Make a colorful chart of things that can be done.

- (1) Only by human beings
- (2) Only by Computer
- (3) Both by human beings and computer



M.D. SENIOR SECONDRY SCHOOL-MANKROLA-GURUGRAM

HOLIDAY HOME WORK-JUNE2020

CLASS-VII

SUBJECT-ENGLISH

SUBJECT-TEACHER-RISHI DUTT SHARMA

INSTRUCTIONS-

ALL THE GIVEN HOMEWORK HAVE TO DO IN A SEPARATE HOMEWORK COPY

YOU HAVE TO DO ALL THE WORK WITH A BEAUTIFULL HAND AND CLEARLY.

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DATED	DESCRIPTION OF THE GIVEN HOMEWORK
13-06-20	LEARN THE POEM- LINES WRITTEN IN EARLY SPRING-ITS DIFFICULT WORD AND THEIR SYNONYMS
14-06-20	WRITE ALL THE COMPONENTS OF A LANGUAGE AND GIVE THEIR DEFINITIONS AND LEARN ALL OF THEM.
15-06-20	LEARN ABOUT THE DEFINITION OF A SENTENCE, PHRASE, CLAUSE, PARAGRAPH, SUFFIX AND PREFIX AND WRITE THEM.
16-06-20	LEARN ALL THE QUESTION/ANSWERS OF THE POEM-LINES WRITTEN IN EARLY SPRING.
17-06-20	READ AGAIN THE CHAPTER THE MOST PREVIOUS JEWEL AND MAKE FIVE SHORT QUESTIONS AND WRITE THEIR ANSWERS.
18-06-20	LEARN ALL THE QUESTION/ANSWERS OF THE LESSON THE MOST PRECIOUS JEWELS
17-06-20	WRITE THE MAIN POINT ABOUT OLYMPIC GAMES AT LEAST-15 POINTS. WRITE THE NAMES OF FIVE BEST OLYMPIANS OF INDIA WHO GOT GOLD, SILVER, BRONZ MEDALS IN OLYMPIC GAMES
18-06-20	WRITE THE DEFINITION OF KINDS OF SENTENCES WITH TWO OR THREE EXAMPLES OF EACH
19-06-20	MAKE THE FLOW CHART OF THE PART OF A SENTENCE.
20-06-20	SOLVE THE FIRST SAMPLE PAPER GIVEN IN THE BOOK
21-06-20	READ THE POEM- BREATHES THERE THE MAN AND TRY TO LEARN IT AND WRITE ITS ALL DIFFICULT WORDS GIVEN IN THE LESSON.
22-06-20	LEARN ALL THE QUESTIONS AND ANSWER OF THE POEM- BREATHES THERE THE MAN
23-06-20	HOW CAN YOU SERVE YOUR COUNTRY? WRITE ABOUT THAT.
24-06-20	MAKE THE MAIN POINTS OF THE LESSON THE DELHI METRO A SUCCESS STORY.
25-06-20	LEARN ALL THE QUESTIONS/ANSWERS OF THE LESSON THE DELHI METRO A SUCCESS STORY.
26-25-20	WRITE ABOUT YOUR OWN EXPERIENCE OF TRAVELLING IN DELHI METRO IN ABOUT 50 WORDS.
27-06-20	WRITE ABOUT THE PURPOSE OF DELHI METRO IN THIS METROPOLITAN CITY. WRITE ABOUT ITS ADVANTAGES
28-06-20	READ THE CHAPTER OF PRONOUN-WRITE THE DEFINITION OF PRONOUN, ITS KINDS NAMES AND EXAMPLES OF EACH
29-06-20	MAKE THE PRONOUN TABLE GIVEN ON PAGE NO 25 GRAMMAR BOOK IN YOUR COPY.
30-06-20	LEARN THE DEFINTION OF PRONOUNS AND ITS KINDS.

HOLIDAYS ASSIGNMENT OF 7th CLASS MATHS

CHAPTER - 1 (KNOWING OUR NUMBERS)

Do the following in your fair notebook . $\underline{\text{WORK SHEET - 1}}$

 Find the value of : (a) |−6| (b) |-29| (c) |7| (d) |-12| (e) |0|2. Solve: (b) $(-2)^5 + (-1)^2$ (a) $(-3)^4$ (d) $(-10)^3 - (10)^2$ $(c) (-8)^6$ 3. Find : (b) -9-12 (a) - 7 + 18(c) 45 - (-5) + (-10)(d) (-6) + 18 - (-9)WORK SHEET -2 1. Multiply: (a) 7 and −9 (b) -5 and 15 (c) -14 and -12(d) 9 and -20 2. Divide : (a) $18 \div -2$ (b) $-64 \div 8$ (c) $-112 \div -4$ (d) $-100 \div 20$ 3. Simplify: (a) $(-2) \times 8 \times (-5)$ (b) $6 \times (-4) \times 9$ (c) $\{(-2) \times 8\} \div (-4)$ WORK SHEET -3 Fill in the blanks using various properties of Integers. (a) + (-156) = (-156) + 58(b) (15 + 48) + (-73) = (+ 48) + 15 (c) $75 \times (-19) = \times 75$ (d) $(-22 \times 16) \times 62 = (16 \times) \times (-22)$ (e) $-175 \times _$ = 0

(f) $-18 \times ___ = -18$

$$(g) \ (-9) \times [(-5) + (-6)] = (-9) \times (-5) + ___ \times ___$$

 $(h) -99 + ___ = -99$

2. Solve the following using Distributive law over addition. (a) $55 \times (-9) + 55 \times (-11)$ (b) $-148 \times 52 + (-148) \times 48$

WORK SHEET -4

- 1. Solve:
 - (a) (-5) + (-50) (b) -8 + 26
- (c) 78 (-7) (d) (-6) + (-2) (-8)
- (e) 60 + (-5) (f) $(-9) \times (-10) \times 2$
- (g) $(-72) \div (-8)$
- The product of two integers is 540. If one of the integer is –6, find the other integer.
- **3.** Solve and find the additive identity of : $[\{(-10) + 7\} 5 + 20]$
- Identify the property :
 - (a) 67 + (-19) = (-19) + 67
 - (b) $[(-10) \times (-25)] \times (-9) = [(-9) \times (-25)] \times (-10)$
 - (c) $45 \times (-10 + 65) = 45 \times (-10) + 45 \times 65$
 - (d) $-918 \times 0 = 0$
 - (e) -525 + 525 = 0
- Solve using Distributive law over addition.
 - $-612 \times 47 + (-612) \times 53$

PROJECT:

Make a weather report of 1 week of any five cities of India like Shimla, Delhi, Bangalore, Srinagar, etc. And compare each city's temperature every day.

WORK SHEET -5

- I. Find the product.
 - 1. 45 × (-5) 2. (-16) × (-18) 3. 12 × 14 × 0
- II. State the sign of the product by multiplying
 - 1. $(-2) \times 5 \times (-1) \times (-5)$
 - 2. $(-10) \times 4 \times 16 \times (-2)$
 - 3. 4 positive integers × 2 negative integers.
- III. Divide.

1. -96 ÷ 12 2. -180 ÷ (-9) 3. (-176) ÷ (-4)

- IV. Write all integers that are greater than 10 and less than 2.
- Write the product of all integers between 20 and 40 that are divisible by 3.
- VI. Simplify.
 - 1. 5 × 3 + (- 3) (- 2)
 - 2. $4 + [(6 \div 2) \times \overline{8 + 2}] 10$
 - 3. $50 \{-5 + [5 \div (-1) 4]\} \times 10$

CHAPTER - 2 (FRACTIONS AND RATIONAL NUMBERS) Do the following in your fair notebook . WORK SHEET -1

1. Add the following fractions :

(a)
$$\frac{5}{12} + \frac{3}{18}$$
 (b) $7\frac{2}{11} + 4\frac{3}{11}$

2. Subtract the following fractions :

(a)
$$\frac{9}{11} - \frac{4}{33}$$
 (b) $8\frac{5}{14} - 3\frac{3}{14}$

Find the product of the following fractions:

(a)
$$\frac{7}{12} \times \frac{4}{28}$$
 (b) $9 \times 2\frac{5}{18}$

4. Divide the following fractions :

(a)
$$\frac{4}{27} \div \frac{16}{36}$$
 (b) $9 \div 5\frac{2}{5}$

5. A square shaped sheet of paper has sides of $15\frac{1}{8}$ cm. ind its perimeter.

 A tailor had 155 m cloth. If he divided the cloth in 3 equal pieces. Find the length of one-third of the cloth.

WORK SHEET -2

- State whether the following numbers are positive rational numbers or negative numbers :
 - (a) $\frac{-5}{8}$ (b) $\frac{8}{-17}$ (c) $\frac{18}{19}$ (d) $\frac{8}{-17}$
- Reduce the following in standard form :

(a)
$$\frac{36}{-28}$$
 (b) $\frac{-11}{264}$ (c) $\frac{-56}{-98}$ (d) $\frac{-3}{54}$

Write four equivalent rational numbers of :

(a)
$$\frac{-2}{9}$$
 (b) $\frac{3}{7}$

WORK SHEET -3

Represent the following rational numbers on a number line :

(a)
$$\frac{-8}{13}$$
 (b) $\frac{7}{8}$ (c) $\frac{-3}{14}$ (d) $\frac{9}{11}$

Fill in the blanks with <, > or =

(a)
$$\frac{6}{7} \square \frac{-8}{7}$$
 (b) $\frac{-11}{12} \square \frac{3}{4}$ (c) $\frac{15}{20} \square \frac{3}{10}$ (d) $\frac{-8}{12} \square \frac{16}{14}$
(e) $\frac{9}{10} \square \frac{7}{15}$ (f) $\frac{-11}{8} \square \frac{-8}{16}$

- Arrange the following in ascending order :
 - (a) $\frac{-3}{8}, \frac{12}{16}, \frac{-13}{6}, \frac{1}{2}$ (b) $\frac{-8}{12}, \frac{7}{3}, \frac{15}{6}, \frac{-3}{2}$

Arrange the following in descending order :

(a) $\frac{5}{7}, \frac{-7}{21}, \frac{-18}{28}, \frac{-1}{14}$ (b) $\frac{4}{5}, \frac{26}{3}, \frac{-9}{15}, \frac{7}{9}$

1. Add the following:

(a) $\frac{-6}{12} + \frac{1}{3}$ (b) $\frac{20}{9} + \left(\frac{-25}{18}\right)$

2. Find the additive inverse of :

(a)
$$\frac{-9}{17}$$
 (b) $\frac{-12}{-71}$ (c) $\frac{19}{-25}$ (d) $\frac{14}{63}$

3. Subtract:

(a)
$$\frac{-3}{6} from \frac{5}{-12}$$
 (b) $\frac{-19}{4} from \frac{15}{8}$

4. Multiply:

(a)
$$\frac{-14}{9} from \frac{36}{-18}$$
 (b) 30 by $\frac{-10}{15}$

5. Divide :

(a)
$$\frac{124}{18}$$
 by $\frac{-7}{14}$ (b) $\frac{-10}{56}$ by $\frac{50}{49}$

WORK SHEET -5

- 1. Express the following rational numbers as decimal :
 - (a) $\frac{17}{100}$ (b) $\frac{51}{5}$ (c) $\frac{-296}{14}$ (d) $\frac{-89}{3}$

Express the following decimal numbers as rational numbers :

- (a) 0.45 (b) -0.625 (c) -7.55 (d) 88.3
- **3.** Identify the type of decimal :
 - (a) 82.323232... (b) 28.85
 - (c) 1.961404780732... (d) 72.1595959...
 - (e) 56.8406

WORK SHEET -6

Find the product:

(a) 24.5×3.6 (b) 1.84×6.9 (c) 9.27×18 (d) 0.22×0.17

- 2. Multiply mentally :
 - (a) 7.278×10 (b) 55.785×1000
 - (c) 68.42×100 (d) 4.82×1000
- 3. Divide :

(a) $2.48 \div 14$ (b) $856.95 \div 25$ (c) $69.44 \div 5.6$ (d) $5.796 \div 2.8$

- Divide mentally:
 - (a) $6.285 \div 10$ (b) $65.752 \div 1000$
 - (c) $98.23 \div 100$ (d) $62.27 \div 1000$

WORK SHEET -4

WORK SHEET -7

- Express the following rational number in standard form :
 - (a) $\frac{-28}{-30}$ (b) $\frac{-146}{22}$ (c) $\frac{49}{-357}$
- **2.** Find the value of $\frac{-25}{3} + \frac{25}{3}$
- **3.** Write three equivalent rational numbers of $\frac{7}{-12}$.
- **4.** Simplify: $\frac{2}{6} + \left(\frac{-3}{4}\right) \frac{7}{12}$
- **5.** Arrange the following in ascending order: $\frac{-7}{10}$, $\frac{6}{5}$, $\frac{13}{15}$, $\frac{-1}{3}$, $\frac{5}{20}$
- **6.** Divide : $\frac{84}{13}$ by $\frac{-8}{39}$
- **7.** Find the product: $\left(\frac{-21}{8}\right) \times \left(\frac{-64}{-375}\right) \times \left(\frac{12}{-16}\right)$
- Express the following rational number as decimal and identify the type of decimal:
 - (a) $\frac{9}{15}$ (b) $\frac{14}{22}$ (c) $\frac{-35}{30}$

CHAPTER -3 (POWERS) Do the following in your fair notebook . <u>WORK SHEET -1</u>

1. Write the base and power of :

(a)
$$(19)^7$$
 (b) $\left(\frac{-8}{11}\right)^4$ (c) $(-26)^9$ (d) $\left(\frac{16}{35}\right)^{11}$

Express the following in rational numbers :

(a)
$$(-6)^4$$
 (b) $\left(\frac{5}{7}\right)^3$ (c) $(3)^6$ (d) $\left(\frac{-1}{10}\right)^5$

3. Write the reciprocal of :

(a)
$$(-8)^2$$
 (b) $\left(\frac{4}{11}\right)^9$ (c) $(52)^{10}$ (d) $\left(\frac{-3}{17}\right)^3$

Write the following in exponential form :

(a) 64 (b)
$$\frac{-125}{27}$$
 (c) 16807 (d) $\frac{121}{169}$

WORK SHEET -2

1. Evaluate :

(a)
$$\left(\frac{5}{7}\right)^9 \times \left(\frac{5}{7}\right)^3$$
 (b) $\left(\frac{9}{13}\right)^{11} \div \left(\frac{9}{13}\right)^4$ (c) $\left[\left(\frac{6}{11}\right)^2\right]^2$

2. Find the value of :

(a)
$$\left[\left(\frac{1}{3}\right)^{-2}\right]^3$$
 (b) $(-654)^\circ$ (c) $(-15)^1$

3. Find $\mathbf{x} : \left(\frac{7}{17}\right)^{4x} \times \left(\frac{7}{17}\right)^{30} = \left(\frac{7}{17}\right)^{50}$ **4.** Simplify : $\left\{\left(\frac{9}{16}\right)^3 \div \left(\frac{6}{8}\right)^3\right\} \div \left(\frac{3}{4}\right)^3$

WORK SHEET -3

- 1. Using laws of exponents, simplify and express the answer in exponential form :
 - (a) $(-7)^3 \times (-7)^8$ (b) $\left(\frac{2}{5}\right)^{11} \div \left(\frac{2}{5}\right)^6$ (c) $(11)^{12} \times (3)^{12}$ (d) $6^\circ + 2^\circ + 8^\circ$ (e) $99^\circ \div \left(\frac{-1}{2}\right)^\circ$
- 2. Simplify:

(a)
$$[8^{\circ} + \left(\frac{-7}{11}\right)^{\circ}] \ge (-16)^{\circ}$$
 (b) $\left(\frac{p^{5}}{p^{2}}\right) \ge p^{-7}$

3. Match the following:

(a)	28400000000	(<i>i</i>)	9.0×10^{15}
(b)	0.000000000284	(<i>ii</i>)	1.35×10^{-15}
(c)	900000000000000	(iii)	2.84×10^{11}
(d)	0.000000000000135	(iv)	$3.3 imes 10^{12}$
(e)	330000000000	(v)	2.84×10^{-11}