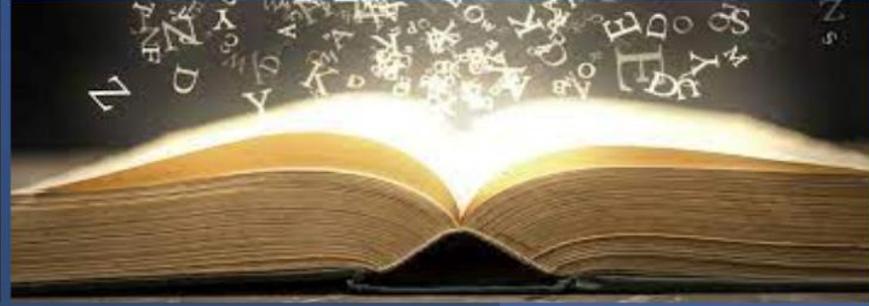
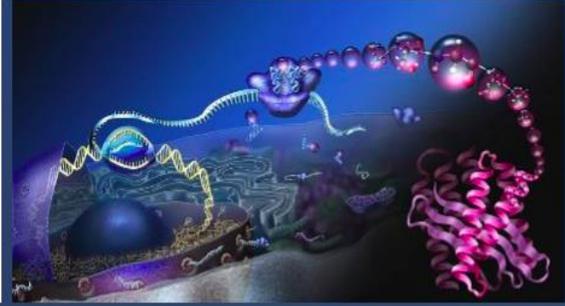




**Pythagorean Theorem**

Pythagorean Theorem  
 $a^2 + b^2 = c^2$

S. Anbalagan,  
Assistant Professor of Mathematics  
Thiagarajar College of Preceptors,  
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**GANGA  
INTERNATIONAL  
SCHOOL,  
HIRAN KUDNA  
HOLIDAY HOMEWORK  
(2022-23)**



Dear Parents  
Warmest Greetings!

Summer vacation forms an integral part of every child's life. As summer rolls around, students ardently wait for the vacation to start to spend time with the loved ones, relax and rejuvenate.

Who wouldn't love to have a fun-filled vacation? Certainly, summer vacation time is exquisite and it also is the best time to learn new things and pursue their hobbies. Therefore, children need to utilize this time more wisely in dynamic learning. As parents it's important for you to keep your kids active and engaged with a variety of fun-engaging games and activities. It will help enrich their skills and keep them entertained during their break.

Reading is one of the best summer-time activities as it helps to improve their reading skills, helps to gain knowledge, increase vocabulary, etc. Summer vacation can be made interesting by going for trips as they give kids chance to explore the world with fresh air, exercise, and observation. Engaging kids in arts and crafts, gardening, watching movies, cooking, learning new skills, joining online courses, helping parents in daily chores, etc. help in the child's growth and development.

How can one ignore studies during summer vacation?

Dear parents, holiday homework provides the perfect opportunity to students to keep their 'intellectual mind' ticking over, and keeps them challenged and stimulated. It develops vital skills such as independent research, enhancing knowledge, etc. which ultimately helps them to prepare for university life. Parents' role in encouraging children to do their holiday task is an undeniably a major one. Therefore, you are expected to render your whole-hearted support to your kids in completing their homework. Thus, summer vacation can prove to be a time of fruitful exuberance as children reap benefits from them if spent wisely and intelligently.

Hope you all enjoy your family time, laughter, and have fabulous memories!  
We wish you all a safe and fun summer time!  
Happy Summer Vacation!

Regards  
Principal  
Ganga International School



**GANGA INTERNATIONAL SCHOOL, HIRAN KUDNA  
HOLIDAY HOMEWORK (2022-23)  
CLASS X**

**ENGLISH**

**GENERAL INSTRUCTIONS:**

- 1. All the questions are compulsory.**
- 2. Make a separate file for holiday homework.**

1. Write a self-composed poem on the following topics:
  - a) Mother {Roll No. 1 to 10}
  - b) School {Roll No. 11 to 20}
  - c) Friendship {Roll No. 21 to 30}
  - d) My Country {Roll No. 31 onwards}
2. Watch the following documentaries according to your roll number:
  - a) Good Will Hunting {1 to 10}
  - b) Lean on Me {11 to 20}
  - c) The Paper Chase {21 to 30}
  - d) Forrest Gump {31 onwards}

Based on the documentary, answer the questions given below:

- a) What was it all about?
  - b) List the fascinating facts.
  - c) What you learned from the movie?
3. Make a poster for the documentary, showing the highlights of the same. [As per the roll numbers mentioned in Q2]
  4. Write one of your qualities that makes you different from others and how does it add to your personality.
  5. Write about your fear or phobia and answer the following;  
How did you overcome it?  
OR  
What do you think you can do to overcome it?
  6. "FREEDOM IS DEAR TO EVERYONE". Justify the statement on basis of your reading of:

- Nelson Mandela – A long walk to freedom [R change Roll no No. 1 to 20]
7. Sympathy, kindness and compassion can change a Thief into a good human being. Justify the statement on the basis of your reading of:  
The Thief's Story [Roll No. 21 onwards ];
8. Enjoy a virtual trip to your dream destination and write your experience in the form of a diary entry in 120 to 150 words.
9. Read the poem, " **The Seven Ages**" by William Shakespeare and answer the following questions :
- Poem suggests that everything is futile and useless in life. Do you agree? Give reason.[Roll No. 1 to 20]
  - In the poem, life has been compared to a stage play. Think of some comparisons between life and nature and write them.  
[Roll No. 21 onwards]

## HINDI

- अपनी माता जी के व्यक्तित्व की विशेषताओं का वर्णन करते हुए उनके प्रति लेख के माध्यम से आभार प्रकट कीजिए।
- राम लक्ष्मण परशुराम संवाद पर एक पीपीटी तैयार करें।
- दंतुरित मुसकान कविता को आधार बनाकर एक सुंदर A 3 साइज़ शीट पर पोस्टर तैयार करें।
- विभिन्न क्षेत्रों की प्रगतिशील और आधुनिक विचार धारा वाली महिलाओं का एक कोलाज तैयार करें।
- पाठ्य क्रम पर आधारित पद परिचय संज्ञा और सर्वनाम हेतु व्याकरण वृक्ष तैयार करें। (3 d इफैक्ट)

## FRENCH

- Regardez un film de votre choix et ensuite écrivez l'histoire en français en utilisant la dictionnaire sur le cahier de français.
- Conjugez les verbes données au temps (présent, impératif, passe récent, passe composé, imparfait, futur proche, futur simple)
  - Avoir – Être – Aller – vouloir – faire – pouvoir – dire – lire – recevoir – boire – prendre – venir
- Écrivez des lettres dans votre cahier de français :
  - Donner des conseils pour rester en forme à votre ami
  - Donner des conseils à protéger l'environnement à votre ami.
- Complétez les exercices de grammaire de leçon -1 -3
- Comparez le système éducatif de France et d' Inde .

# MATHEMATICS

Make a project on the topic given below:

A. Explore evolution in the following Number System (Students having even roll nos.)  
The Egyptian, The Greek, The Babylonian, The Indian

Present your work in form of Mathematics Journal, full of mysterious and amazing secrets and discoveries.

Use your imagination and art skills to draw pictures to support your write up for this journey.

B. Think/ Analyse a situation in which the quantities have a linear relationship.-(students having odd roll nos.)

Find out/Visualise, which quantities are related and how they are related? Which quantity depends on the other one in order to bring up dependent and independent variables?

Once the relationship has been expressed in words, use mathematical symbols to express the relationship. Represent it graphically. Find out /Collect at least five more life situations for which linear equation can be framed.

2. Prepare a portfolio showing all your achievements including your bio-data and career preferences.

3. Prepare a concept map on A3 size sheet for:

(i) Real numbers (roll no. 1-15)

(ii) Polynomials (roll no. 16-30)

(iii) Pair of Linear Equations in two Variables. (roll no. 31-45)

4. **Activity:** To factorise expression of the type  $Ax^2 + Bx + C$

a)  $x^2 + 5x + 6$  (roll no. 1-15)

b)  $x^2 - x - 6$  (roll no. 16-30)

c)  $2x^2 - 7x - 6$  (roll no. 31-45)

5. Make a PowerPoint presentation

(i) Depicting the benefits of Standard and Basic Maths.

(ii) Which one will you choose and why?

6. Practice questions from NCERT EXEMPLAR from the chapters:

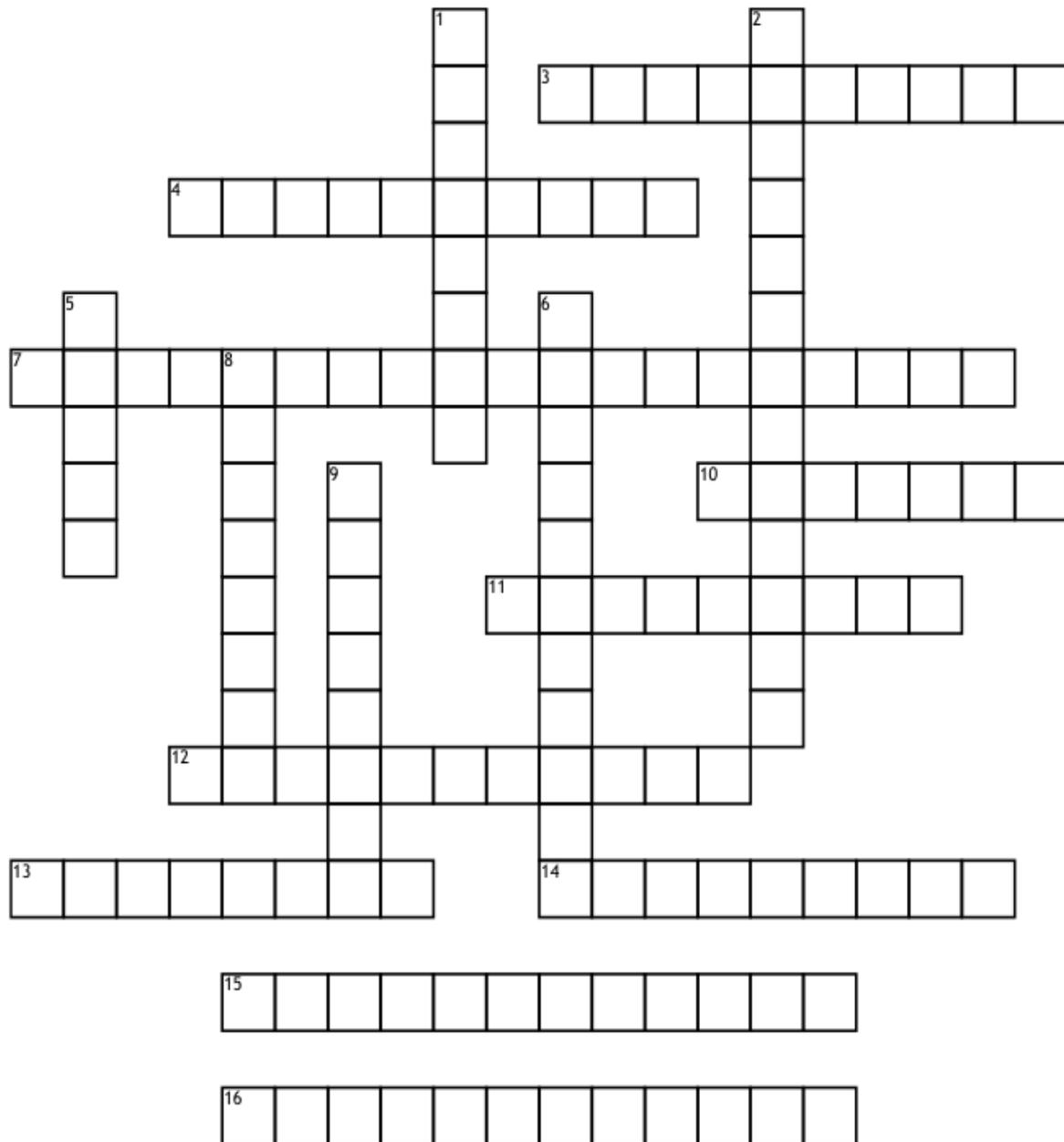
a. Real Numbers

b. Polynomials

c. Pair of Linear Equations in two Variables

7. Fun Game:

# Math Terms Crossword Puzzle



## Across

3. A mathematical phrase with operators connecting numbers and variables is an \_\_\_\_\_.

4. A \_\_\_\_\_ is an algebraic expression made by adding or subtracting terms.

7. The degree of the term with the greatest degree is the \_\_\_\_\_.

10. Numbers or variables that form a product are \_\_\_\_\_.

11. Terms that have the same variable(s) raised to the same exponent(s) are \_\_\_\_\_.

12. Terms with different variables, or the same variables raised to different exponents are \_\_\_\_\_.

13. A letter representing a number or value that can change or vary is a \_\_\_\_\_.

14. A three-termed polynomial is a \_\_\_\_\_.

15. A term with no variables, that's value remains the same is a \_\_\_\_\_.

16. When the terms of a polynomial are ordered from highest to lowest degree is known as \_\_\_\_\_.

## Down

1. A one-termed polynomial is a \_\_\_\_\_.

2. In a term, the sum of the exponents on the variables is the \_\_\_\_\_.

5. Numbers, variables, and the products of numbers and variables are all \_\_\_\_\_.

6. The number that a variable is being multiplied with is called the \_\_\_\_\_.

8. An \_\_\_\_\_ is a mathematical statement that says two expressions are equal.

9. A two-termed polynomial is a \_\_\_\_\_.

# SCIENCE

## PHYSICS

1. Gather information about various energy sources and how each one affects the environment.
2. As the demand for energy has increased, so has the number of alternatives for its production. One such alternative is a biogas plant.

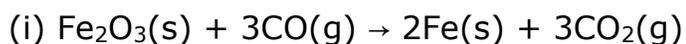
What to do?:

- a) Explore and find out the biogas plants located in different parts of India.
- b) Research out the various raw materials used, and the components used in setting up a biogas plant.
- c) Study the cost of setting up the plant.
- d) List down the benefits of using biogas plants. (Prepare 400- 500 words report on the topic)

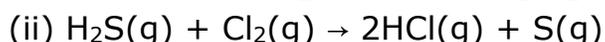
## CHEMISTRY

Answer the questions on the basis of your understanding of the following paragraph and the related studied concepts.

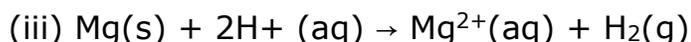
1. Redox reactions involve both oxidation as well as reduction. If we cut an apple, it turns reddish brown after some time because  $\text{Fe}^{2+}$  present in apple gets converted into  $\text{Fe}^{3+}$  by loss of electrons. Oxidation is a process in which loss of electrons takes place. Oxidation is carried out with the help of oxidising agent which can give  $\text{O}_2$  or remove hydrogen or can gain electrons. Non-metals are good oxidising agents,  $\text{KMnO}_4$ ,  $\text{K}_2\text{Cr}_2\text{O}_7$  are also good oxidising agent in acidic medium. Combustion is oxidation reaction. Reduction involves gain of electrons. Reducing agent can add  $\text{H}_2$  or remove  $\text{O}_2$  or can lose electrons. Metals are good reducing agents. Reducing agents are used in extraction of metals.



Name the oxidising and reducing agent in the above reaction.



Name the substances which are getting oxidising and reduced.



Why is Mg acting as reducing agent and  $\text{H}^+$  ions are oxidising agent?



What are types of above reaction?

2. A metal carbonate X on reacting with an acid gives a gas which when passed through a solution Y gives the carbonate back. On the other hand, gas G that is obtained at anode during electrolysis of brine, is passed on dry Y, it gives a compound Z, used for disinfecting water.

(i) X, Y and Z are

## ACTIVITY

1. To make homemade pH paper and test whether following materials are acidic, basic or neutral: Lemon juice, vinegar, carbonated water, distilled water, toothpaste, milk of magnesia, bleach. Write this activity in chemistry notebook along with observation table.
2. Prepare a modern periodic table.

## **BIOLOGY**

Prepare a project report on the following: a) Parts of Brain and their functions (Roll Nos. 1-19) b) Various Hormones secreted in human body and their functions (Roll Nos. 20-40)

## **SOCIAL SCIENCE**

Prepare a Historical timeline on the given topics in your textbook.

2. Write life sketches of the following personalities:

- . Giuseppe Mazzini
- a. Kaiser Wilhelm
- b. Duke Metternich

3. Prepare a poster or a collage on A3 size sheet on the topics given below: (roll number wise).

1-10 Rain Water Harvesting,  
11-20 Disaster Management,  
21-30 Renewable Resources.

4. On the political map of India, identify:

- a) Chapter- Mineral and Energy Resources: Iron ore Belts, Nuclear Power Plants
- a) Chapter- Life line of national Economy: Major sea ports, International Airports.
- b) Chapter - Manufacturing Industries: Iron and Steel Industries, software technological parks.

5. Identify and shade three federal countries on a blank outline political map of the world.

## **INFORMATION TECHNOLOGY**

### **General Instructions:**

1. Write your name, class, and topic as the subject when you mail your file.
  2. Use the appropriate chart, sheet, cardboard, or thermocol sheet for preparing your project.
  3. PPT should include a logo, pictures, relevant text.
  4. Mail your ppt or project @ [tgtcomputerscience@gangainternationalschool.com](mailto:tgtcomputerscience@gangainternationalschool.com)
- 
1. Make a Mail Merge document to create a letter for 100 students to inform about school function.
  2. Make a website using Wordpress.com website. And share your website link on the above given email id.
  3. Explain Advantage of Databases. Also, research on internet about how google database server actually works and share your findings.
  4. Write notes on Computer security? Also explain how to protect your computer from unauthorized access.
  5. Make a chart to explain different types of computer networks.

# Happy Summer Holidays.

Enjoy the summer  
with your close ones.



HAVE A  
GREAT  
Summer

