

A LETTER TO TEACHERS

Dear teachers,

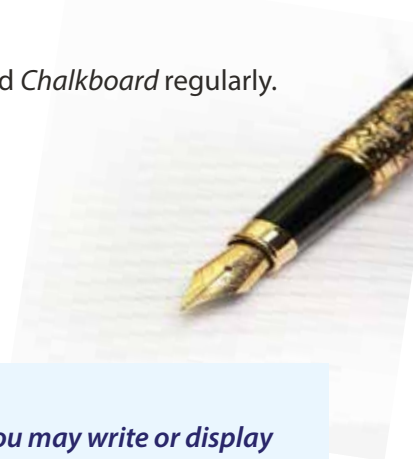
Greetings from Shriram Foundation!

This month we are happy to announce our first contest for students: A poetry and drawing contest based on the Theme of the Month. Please do go through the article and conduct the activity in class. Select the best entries and send scanned copies to us by email with the name of the school, the teacher who conducted the activity and the name of the student, class and section. The best of the entries from all 25 schools will be selected and featured in the next *Chalkboard* issue.

We hope to roll out many more contests for you and for your students. So be sure to read *Chalkboard* regularly.

At Shriram Foundation, we look forward to hearing from you about your experiences. Please write to us at m100.shriramfdn@gmail.com.

Warm regards
Editor



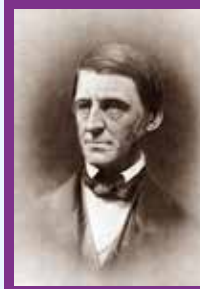
WISE WORDS

Here are some proverbs, sayings and quotations from all over the world to inspire you. You may write or display them on your blackboards or notice boards, explain and discuss them with your students.



"The path from dreams to success does exist. May you have the vision to find it, the courage to get on to it, and the perseverance to follow it. Wishing you a great journey."

— Kalpana Chawla



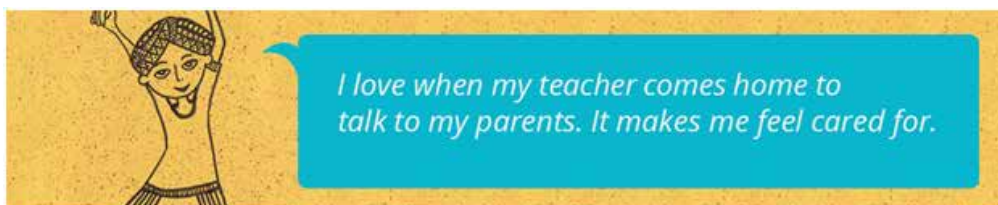
"The only person you are destined to become is the person you decide to be."

— Ralph Waldo Emerson

TEACHER TIP

Home visits

It's important for teachers to understand the context in which their students live and learn – their home. Home is also where students apply all that they learn at school. Home visits can be an informal space for parents and teachers to discuss the student's development. Also, children enjoy it when their teachers visit their homes.



Here are some quick points to plan your home visits:

- Before the visit, have a clear idea why you want to visit this child's house.
- Check the family's availability while choosing the time and date.
- Think of questions you would like to ask the family to get to know the student better.
- Be ready with one or more positive stories/ achievements of the student. Make sure that it doesn't become a time for complaining about the student.

After the home visit, make sure that you document the information gathered from the visit. This can give you ideas for helping the student better with his studies.

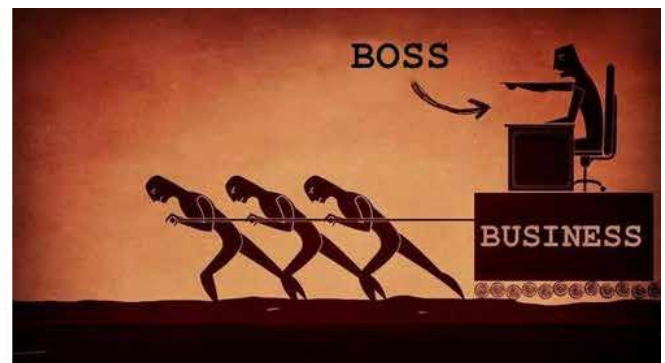
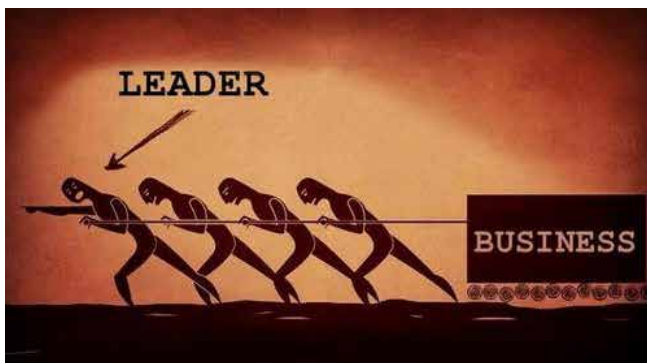
Also, stay in touch with the parents and continue to communicate with the family.

LETTER TO CORRESPONDENTS

V.S. Anuradha

Leadership and Schools

In this issue we shall try to answer an important question: Does the style of leadership have an impact on the school? Who is a school leader? Is it just the headmaster or principal? All decision makers involved in the growth and development of the school are referred to as school leaders.



Let us look at two schools.

Mr X is the principal of school A. He likes to call himself 'leader' of the school. Mr X is a vision-driven person.

Mr Y is the principal of school B. He likes to call himself 'manager' of the school. Mr Y is a task-oriented person.

How are these two different? Let us visit both schools A and B to understand the difference.

School A:

Mr X is teaching class 7. It is around 10 a.m. The teachers take responsibility in the absence of the principal even when he is not in school. All decisions regarding school infrastructure like libraries, lab, play equipment and rules for the children and teachers are taken collectively. The teachers and the principal discuss and make changes if they find there is a way of improving things in the school. Since the children cannot afford extra books, magazines or story books at home, the school makes small investments. They have a simple lab which the children use. They have creative low-cost playing equipment and the principal believes in teacher training.

The children, teachers, parents, principal and management of the school know the vision for their school. Their goal is to do all things to make sure the children get the best learning opportunities. The teachers like to work in the school because they are learning with the children and they are encouraged and supported by Mr X.

This is what we call a learning school.



School B:

The principal Mr Y is in his room. Nobody can walk into his room without permission. He tells the teachers what to do and how to do. He has an assistant who makes sure that things are done the way he wants teachers to do. Teachers are more worried about execution than the quality of teaching. There is very little support and help to the teachers. He doesn't think there is a need for labs. Only board and chalk is used. Sometimes the teacher does something out of personal interest. Everybody in the school is bothered about following instructions. The principal doesn't like change. These children come from low-income group and cannot afford books or play equipments at home. Yet, there is minimum infrastructure in the lab and PT room. They have had some chemicals for a long time and they don't work. There is no library or books for the children. One senses boredom and indifference among the children and teachers. This school has remained the same way for more than 10 years and we will hardly find any difference after 10 years. This is what we call a stagnant school.

The schools are in the same place. Same kinds of children attend both schools. Parents are also from similar background. So, where is the difference?

Mr X is a leader. He believes in leading the school. He knows that school is a place that should provide meaningful experiences to the children. This can happen only if he is open to helping his teachers learn by supporting them. This kind of leader is called a visionary leader.

Mr Y is called an autocratic leader. He does not believe in the capacity of his teachers. Therefore his teachers will take little or no interest in their work.

So, what kind of leadership will help a school? Please visit some schools and observe to understand the nature of leadership.

True leaders don't create followers. They create leaders.

QUIZ

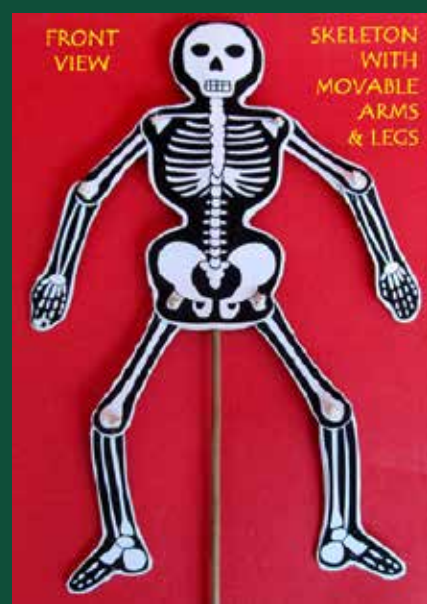
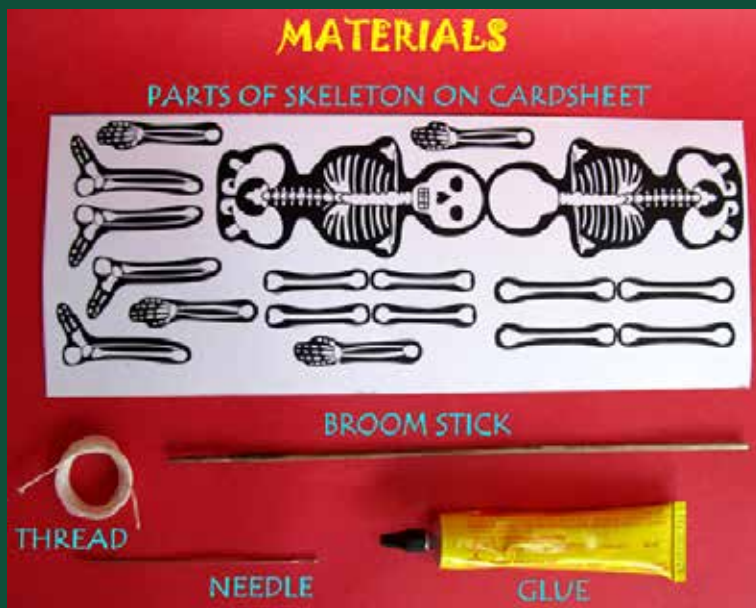
Can you imagine learning general knowledge through mathematics? Here is a very interesting quiz for your students. Use the mathematical clues in the brackets to find the answers to the questions.

1. What is the atomic weight of Carbon? (Clue: The value of 'x' in the equation: $5x + 5 = 2x + 41$)
2. What is Absolute zero in degrees Celsius? (Clue: $726.85 - 1000$)
3. How many hours are there in a week? (Clue: You know to calculate it!)
4. What is our national emergency number? (Clue: $10^2 + 12$)
5. Which number is known as the Ramanujan number? (Clue: $9^3 + 10^3$ or $1^3 + 12^3$)
6. What is the number of zeroes in a googol? (Clue: Smallest 3 digit number)
7. Rishang Keishing is the oldest parliamentarian in the world who served as the Chief Minister of Manipur for four terms. He has served as a state and federal politician during the reign of every Prime Minister of India from Pandit Jawaharlal Nehru to Mr. Manmohan Singh. At what age did he retire? (Clue: $\sqrt{8836}$)
8. How many members does SAARC have at present? (Clue: $17/6 + 25/6$)
9. To stand as a candidate for election to the Lok Sabha, a person must be not less than _____ years of age. (Clue: $4! + 1!$ Hint: $5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$)

In the classroom: Science through toys

Imagine making a simple toy that can illustrate more than one principle! This acrobat skeleton can be used to illustrate the human skeletal system as well as the principle of centrifugal force.

All you need is, the parts of a skeleton on a cardsheet, broomstick, thread and glue. Cut out the parts from the sheet and stick two layers of the head and the body on both sides of the stick. For the hands and legs, use thread to hold them together so that they are movable.



Now hold the stick and twirl it around. What do you observe? How do the hands and legs of the skeleton move?

You will observe that, as you rotate the skeleton, the hands and legs move away from the centre. Why do you think this happens? This is due to the action of centrifugal force. When an object is moving along a circular path, this force seems to be pulling it away from the centre.

*Source: <http://www.arvindguptatoys.com/toys/Acrobatskeleton.html>

Sci-fun: Amazing Science facts!

Here are some quick and interesting science snippets to share with your students!

Triple Point: Can a substance exist as a solid, liquid and gas at the same time? Surprisingly, the answer is yes! The triple point is the temperature and pressure at which a substance can exist in all 3 states. For water, the triple point is at 32.02°F (0.01°C) and 0.006 atm.

Weird Animal Brain: Did you know that two-thirds of the brain of the octopus is in its arms? These eight networks control the movement of the tentacles independently. When movement has to be co-ordinated, the octopus uses the little central hub located in its head.





“Science is simply common sense at its best.”

—Thomas Huxley



Dear Science Teachers,

Welcome to the March edition of Science at School – the monthly magazine specially for you!

In this edition, we bring to you recent events in Science, puzzles, lots of Science activities and much more!

Discovery of the Month: Human Circulatory system

Do you know that there was a time when it was thought that blood was created in the liver and used up by the muscles? It was even thought that blood vessels were filled with air!

In the year 1628, William Harvey was the first person to prove that the blood was not consumed, but circulated throughout the body and returned to the heart.



A medical doctor by profession, he did extensive experiments to understand the blood flow in arteries and veins. He did a series of experiments in which he tied off a single artery or vein. He would then release it after a while to see where the blood would flow to. Through these experiments, he found that blood always flowed from arteries to veins. He also found that the heart acted as a pump to push blood out to the lungs and into the arteries.

It is remarkable to think that these discoveries were made at a time when there were hardly any scientific instruments (the microscope was still not invented). In fact, many people refused to accept his theory and he lost many patients. But today, his work is considered the beginning of modern physiology.



Science in the News



ISRO establishes world record

In a record feat, the Indian Space Research Organization created history by placing 104 satellites in their orbits in one go. The launch vehicle was PSLV C-37 that took off from the Satish Dhawan Centre, Sriharikota, at 9.28 a.m. on February 15, 2017.

Chennai's oil spill

In a tragic accident, on January 28, 2017, two cargo ships collided off the Ennore coast in Chennai causing almost 20 tonnes of oil to spill into the sea. Six days later, the oil had spread 35 kilometers along the coast. This had an adverse effect on the ocean life, leading to the dying of many turtles and hatchlings. Though the spill was cleared up rapidly, people are still worried about the damage to the environment.



Classroom Activity: Try the following activities in class to help students learn how to clear up an oil spill.

<https://www.youtube.com/watch?v=kQI5YFDteEI>

<https://www.youtube.com/watch?v=VTU3JNAIOG8>

10. What is the only number known to be both the sum and product of its factors? (Clue: 0.06×100)
11. How many sides does a dodecahedron have? (Clue: Numerical value of a dozen)
12. How many Indian coastal cyclone warnings signals are there? (Clue: Side of a cube whose volume is 1331 cu. units)

PUZZLE

Fubuki

Here's a fun addition puzzle for primary school children!

Place the numbers 1 to 9 in the grid such that each horizontal and vertical line adds up to the sum given in the blue squares at the end of every row and column. You can use each number only once. The first Fubuki has been done for you. Complete the other two puzzles in a similar manner.

2	1	3	6
8	7	6	21
5	9	4	18
15	17	13	

			9
7			18
9	5	4	18
18	9	18	

4		7	12
			19
9		3	14
18	9	18	

BRAIN TEASERS

A question a day keeps boredom away! Try these questions at the end of the school day.

1. When you add two letters, this five letter word becomes shorter. What is it?
2. Which odd number can be made even by removing one letter?
3. This word remains the same when you read it normally or upside down. Name the word. [Hint: The word must be written in capital letters.]



PUZZLE

Word Ladder

Here's a very interesting activity for primary and middle school children on word building!

Use the clues to fill the words in the circle, moving from one sector to the next, changing one letter at a time, until you find all the words.

WORD LADDER-1

1. Not many (Ans. FEW)
2. Opposite of old
3. In the present time
4. To plant seeds in an area of ground
5. Past tense of see
6. The foot of a cat
7. You write exams on this
8. Opposite of good
9. You sleep on this
10. Past tense of feed



WORD LADDER-2

1. The top layer of earth in which plants grow (Ans. SOIL)
2. A mosquito _____
3. This is how a cricket match begins. _____ toss
4. To put two things together
5. Followers of Mahavir
6. Important
7. You get it through post or internet
8. To travel on water



THEME FOR THE MONTH

Many special days are observed in March. Here are some ideas to celebrate them at your school!

Women's Day

Every year, March 8th, is celebrated as International Women's Day. Here are some activities you can do on Women's day:

- ❖ Ask the students to plan a few activities or cultural programmes to appreciate the women around them. This could include making greeting cards or simply helping the women at home with the daily work.
- ❖ A day after Women's Day, ask them how their planned activity went. They can talk about it in class. Encourage students to discuss how they could continue to appreciate and help women more often.
- ❖ For middle school and high school students, hold a debate on, "Are men and women treated equally in society? Why do you think so?" Make sure that the two teams consist of both boys and girls.
- ❖ On this day share with your students the achievements of the following women achievers:



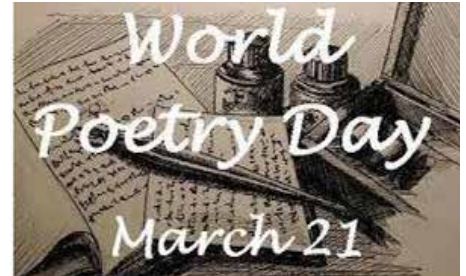
The first Indian woman to climb Mount Everest		Bachhendri Pal
The first woman to climb Mount Everest		Junko Tabei (Japan)
The first woman pilot in Indian Air Force		Harita Kaur Dayal
The first woman Olympic medal Winner		Karnam Malleswari (2000)
The first woman Judge in Supreme Court of India		Justice M. Fathima Beevi
The first and last Muslim woman ruler of India		Razia Sultan

World Poetry Day

World Poetry Day is celebrated on March 21. Celebrate this day by holding a recitation competition for your students.

You can also bring the themes of Women's Day and World Poetry Day together in the following ways:

- Share a few poems written by women Telugu poets with students.
- Ask students to write a poem on the women who inspired them the most.
- Children in primary school can draw a picture of a woman they like and write two lines of poetry about her.



Send us the best students' poems (in Telugu or English) and best portraits with the name of the student, their photo, class and name of the school. We will feature them in the next *Chalkboard* issue.



Drawing competition – Classes 1-5

Poetry competition – Classes 6, 7, 8



Answers

Quiz

- | | |
|------------|--------|
| 1. 12 | 7. 94 |
| 2. -273.15 | 8. 7 |
| 3. 168 | 9. 25 |
| 4. 112 | 10. 6 |
| 5. 1729 | 11. 12 |
| 6. 100 | 12. 11 |

Puzzles - Fubuki

2	1	6	9	4	1	7	12
7	3	8	18	5	6	8	19
9	5	4	18	9	2	3	14
18	9	18	18	9	18		

Puzzles – Word ladder-1

- | | |
|-------------------------------|-----------|
| 1. <u>F</u> <u>E</u> <u>W</u> | 6. P A W |
| 2. N E W | 7. P A D |
| 3. N O W | 8. B A D |
| 4. S O W | 9. B E D |
| 5. S A W | 10. F E D |

Puzzles – Word ladder-2

- | | |
|--|------------|
| 1. <u>S</u> <u>O</u> <u>I</u> <u>L</u> | 5. J A I N |
| 2. C O I L | 6. M A I N |
| 3. C O I N | 7. M A I L |
| 4. J O I N | 8. S A I L |

Brain Teasers:

1. Short 2. Seven (Remove the "s" and it reads "even") 3. SWIMS