SHRIRAM Foundation
EMPOWERING LIVES

chalk board

Monthly newsletter for teachers – April 2018

A LETTER TO TEACHERS

Dear teachers,

Greetings from Shriram Foundation!

One more academic year has gone by. As you wind up for the year and make your holiday plans it is a good idea to spend some quiet time reflecting on the year gone by. What were the big lessons you learnt this year? Reflection is important for every teacher because a teacher is always a learner.

Share your memories of the last year with us. Write to us at m100.shriramfdn@gmail.com. We look forward to hearing from you.

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 black boards or notice boards, explain and discuss them with your students.

"Intelligence is the ability to adapt to change."
- Stephen Hawking

(He was a theoretical physicist, cosmologist, author, and Director of Research at the Centre for Theoretical Cosmology within the University of Cambridge.)

"The man who can drive himself further once the effort gets painful is the man who will win."
- Roger Bannister

(He, as a medical student, was the first person in the world to run a mile in under four minutes)

TEACHER TIP

Improving Social Awareness

It is important for children to know the significant challenges and issues in society. Disease, poverty, unemployment, violence and discrimination of different kinds are some of the big issues that our society faces. Individuals and organisations work hard to help those who are affected. It is important for growing children to be aware of these social ills and the efforts to overcome them.

You can use the following ways to make your students more socially aware:

1. Visit organisations that do important social or conservation work. Here they can learn about the issues and what can be done to address them. They will also learn what they could do to contribute.
2. Older students may help by doing certain tasks or by conducting research/surveys. This would ensure learning-while doing work. For example, if a group is engaging in afforestation, the students could help in planting and watering trees.

This could help develop a sense of social responsibility in students. They might even meet inspiring people. Meeting people fighting bias or violence or conditions like poverty would help build empathy.

STORY OF THE MONTH

International day of sport for development and peace

"Sport can create hope, where once there was only despair. It is more powerful than governments in breaking down racial barriers. It laughs in the face of all types of discrimination." - Nelson Mandela

The International Day of Sport for Development and Peace (IDSDP) is an annual celebration of the power that sport, athletes and sports organisations have to help bring about social change, and to foster peace and reconciliation. The day falls on April 6, the anniversary of the first Modern Olympic Games in 1896.

The power of sports to bring unity and peace was evident when rugby helped unite South Africa in the post-apartheid era.

The word apartheid literally means "apartness". For generations, South Africa had practised apartheid. Although the population of the country consisted of people of different racial origins, and the majority were black Africans, a small minority of white-skinned South Africans ruled over the country. Black and coloured people had to live separately and were treated poorly in all matters. Eventually the coloured and black people rose in protest under the leadership of Nelson Mandela.

Apartheid was overturned, and Nelson Mandela was elected President of South Africa in 1994. He was the first black president of South Africa. Although he represented the black Africans, as a wise leader he knew that to make the country strong he would have to unite the two strong warring factions, the white and the black populations.

A year after the elections, South Africa hosted the Rugby World Cup. Rugby was popular among the white population in South Africa. Usually when South Africa played rugby, the blacks cheered for the opposition. The symbol of the rugby team of South Africa was the springbok. The blacks hated the symbol because they associated it with the whites.

On the day when South Africa had their first match in the World Cup, Mandela came to the ground wearing Springbok colours, and when he entered the stadium, the predominantly white crowd burst into applause. When Mandela and Pienaar, the white captain of the rugby team, shook hands, that image became one of the country's most defining symbols of unity and reconciliation. It was a moment that changed the course of the entire country forever.

QUIZ

Water

Here are ten questions for you to answer. Find the answers and write them on a sheet of paper with your name and class and submit it to your teacher. The correct answers will be displayed on the school notice board on the fifth day from today.

1. Water is made up of which two elements?
2. The solid state of water is known as what?
3. True or false? Sound travels faster through water than air.
4. Nimbus, cumulus and stratus are types of what?
5. What is the longest river on Earth?
6. Does water cover more or less than 50% of the Earth's surface?
7. True or false? Pure water is tasteless.
8. When water is cooled, does it contract or expand?
9. What is the chemical formula of water?
10. Name the deepest point in the oceans of the word.

FROM OUR SCHOOLS — Science Day Celebrations

Annapurna Vidyalaya School celebrated Science Day on February 28th this year. The celebrations started with a brief talk on the importance of the day and the theme of the year "Science and Technology for a sustainable future". The science teachers of the school also addressed the students on the role and impact of science in daily life.

The students showcased a few live science experiments and exhibited models to the whole school. This included projects like making a volcano and making a JCB along with Eno experiments, an air pressure project and making an ATC(Any time Chocolate).The Program ended with the exhibition of all the models.




CROSSWORD PUZZLE — Personality Adjectives

You can now make your vocabulary and grammar teaching activities interesting. Here is a simple crossword puzzle for your primary children. Ask them to read the clue and find the correct adjective that would best describe the person in the clue from the Answers box.

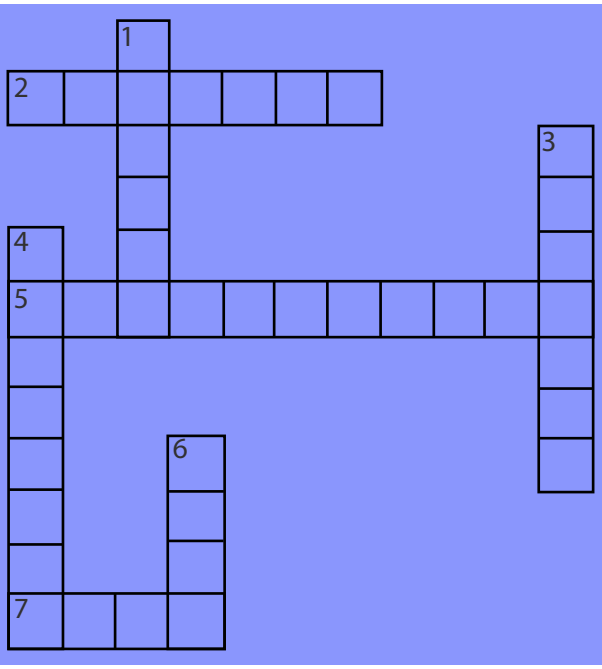
Answers box:			
Lazy	Hardworking	Clever	Helpful
Busy	Cheerful	Naughty	

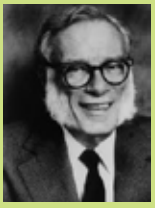
Across

2. Teja always helps his mother to wash the dishes and clothes. I think he is very.....
5. Students who are.....do well in examination.
7. Peter does not help at home. He is a.....boy.

Down

1. Mohan can solve problems very fast. He is very wise and.....
3. The teacher punished the.....boy.
4. My mother likes singing and dancing. She is a very ..... person.
6. My father works everyday from 7:00 a.m. to 10:00 p.m. He is always.....





"The true delight is in the finding out rather than in the knowing." - *Isaac Asimov*

(Isaac Asimov was a biochemistry professor at Boston University. He is best known as a writer for his science fiction and popular science.)

Dear Science Teachers,

Welcome to the April edition of Science at School – the monthly magazine especially for you! In this edition, we bring to you a newly introduced Question Corner and much more!

In the Classroom: Summer Science Activities

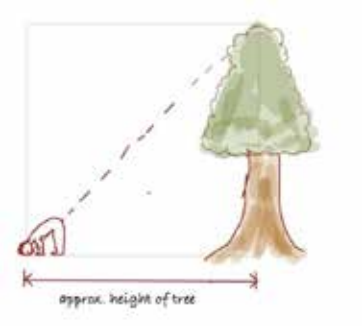
Here are some summer project ideas you can share with your students!

Simple Barometer: Can we measure air pressure using a simple home-made device? Read on to find out how.
Materials required: Small plastic bottle, balloon, rubberbands, straw, pin

- Cut a small strip of the balloon, stretch it over the mouth of the bottle and fasten it tightly with rubberbands.
- Tape a straw to the centre of the balloon as shown in the picture.
- To the other end of the straw, tape a pin as shown.

Now your barometer is ready! You can tape a paper behind the barometer and check the position of the pin everyday.

How it works: When the air pressure is high, the balloon dips, causing the pin to move up. When air pressure is low, the air in the jar pushes the balloon up, so the pin moves down.



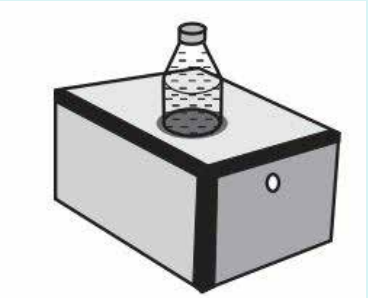
Height of trees: Can we measure the height of tall trees without climbing them? The answer is yes !
All you need is a measuring tape.

- Stand under a tree. Can you see the top of the tree? If not, move farther away. Keep moving away, till you can see the top of the tree.
- When you can see the top of the tree, then the distance between you and the tree is approximately equal to the height of the tree.

Natural light bulb: What can be a natural way to light up your home in the day time without using electricity? Here's a model that demonstrates just that!

Materials required: Transparent plastic bottle filled with water, cardboard box, tape.

- Seal the cardboard box on all sides.
- Make a small peep hole on one side as shown in the picture. Make a hole large enough to fit the bottle on the top of the box.
- Suspend the bottle filled with water such that half of it is inside the box and half is out.
- Go out in the sun and look into the box through the peep hole. You will see that it is brightly lit up.



Isn't it a simple way to demonstrate refraction of light and save some electricity too?

Why not start a question corner in your own class and send us your students' questions? Mail it to us at m100.shriramfdn@gmail.com. We will feature your question and the answer in the next edition of Chalkboard.

"Science and every day life cannot and should not be separated"- *Rosalind Franklin*

(Rosalind Franklin was a chemist and X-ray cystallographer from England who played a major role in the discovery of the structure of DNA)

Science Newsletter for teachers

Science in the News : *An Ode to a legendary scientist*

The famous physicist, Stephen Hawking passed away on 14th March, 2018. He was known for his path-breaking work as much as his struggle with a terminal disease.

At the young age of 21, during his post-graduate studies, he was diagnosed with ALS (Amyotrophic Lateral Sclerosis) – a disease that paralyzed most of his body by the time he was 30. After a few years, he lost his voice and had to communicate through an automated system. Doctors predicted that he wouldn't live long.

But he remarkably lived for more than five decades, actively performing his space science research. He was one of the few scientists, who also played a major role in popularizing science. His book, 'A Brief History of Time' which explains the evolution of the universe in simple terms, has been widely read all over the world.

Through his work and life, he proved that it is possible to achieve your dreams, no matter how big the setbacks are. The world mourns the loss of a deeply inspirational human being.

Special Feature: Curious questions, Simple answers

Why is water kept in a mud pot colder than water kept in a plastic bottle?

What is the first thing you look for after standing in the hot sun for a while? Isn't it a glass of water? And better still, if it is a glass of cold water, isn't it?

Have you wondered how the water kept in a clay pot gets cold? It is because the pot has very tiny pores. Through these pores, water seeps out of the pot. This water then evaporates and becomes vapour. The process of evaporation needs heat. This heat is absorbed from the water inside the pot. So, the water inside the pot becomes cool.

Here's a simple experiment to demonstrate the same principle:

- Take a plastic bottle and cover it with newspaper.
- Wet the bottle with water and fill it with water.
- Leave it at room temperature for some time and then check.

Did the water in the bottle become cooler than before? As the paper coating dries, the evaporation uses up heat from the water inside the bottle.

Sci-fun : Do-it-yourself

What do you think is the easiest and cheapest way to control global warming? If you answered planting more trees, then you are right! Here's a fun way to do just the same.

- Take some seeds of your choice, clay and potting soil. Wet the clay and roll it into a disc shape. Into this clay disc add ½ teaspoon of potting soil and ¼ teaspoon of seeds. Now fold the clay, such that the seeds are packed into the clay ball.
- Now put some potting soil and seeds on a flat surface and roll the clay ball on it. Once again, knead the ball so that its surface is even.
- Dry these seed balls for a few days. Once they have dried, you can throw them in places where you want your plants to grow.

You can also gift these seed balls to people who visit your school or home!

THEME FOR THE MONTH — World Autism Awareness Day

World Autism Awareness Day is observed annually on 2nd April. It is important for children to know about autism and autistic people.

People who have autism :

1. may not be able to communicate verbally and non verbally like the rest of us
2. may not be able to interact with others socially
3. may see, hear and feel the world differently from other people.

Autism is not considered an illness or a disease, and it is not something which can be cured. Some autistic people may even have extraordinary abilities and talents, which could include mathematical abilities, memory feats, and artistic and musical talents.

People with autism have difficulties adapting to regular life. It is challenging for them to find the right type of school and education, find employment, be able to live with independence and maintain good health, travel safely by themselves, and begin and maintain inter-personal relationships.

It is important for everyone to be aware of autism, so that they may support and be empathetic to the autistic people around them. There are over 18 million people who have autism in India.

Field Visit: Take your students to visit a school for children with autism so that they can get a clearer understanding of what autism really is, and allow them time to quietly observe the students. Ensure that the students behave respectfully and kindly to the students with autism, and encourage them to ask the teachers any questions they may have.

CREATIVE CORNER — Bottle Cap Boats

World Earth Day is celebrated every year on the 22nd of April and various events are held to demonstrate support for environmental protection. The children can spend some time cleaning their surroundings and collecting bottle caps that are discarded into the environment. Using the caps that they collect they can do this fun activity.

Things needed: bottle cap, blu-tack or clay, toothpick, paper (or leaf)

1. Press a small piece of blu-tack or stick some clay into the base of a bottle cap.

2. Colour a corner of a piece of paper and cut out. It's a good idea to make a few sails because they tend to get wet, but are easily replaced.

3. Thread the paper sail on to a toothpick and press the bottom of the toothpick into the blu-tack.

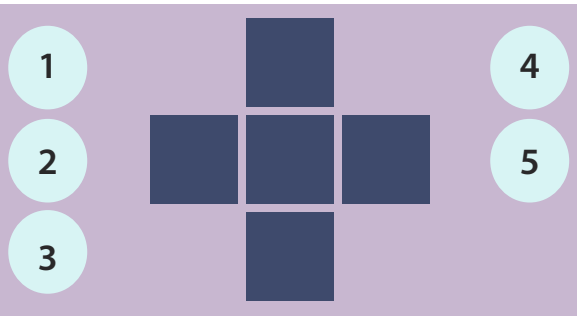
4. You can also use a leaf for the sail, that way, it doesn't get soggy when wet.

5. You can fill a tub or bucket with water or find a water body outside and your boats are ready to sail!

MATH PUZZLES

Arrange the given numbers in the cross so that the sum of the numbers in the vertical line is the same as the sum of the numbers in the horizontal line.

A



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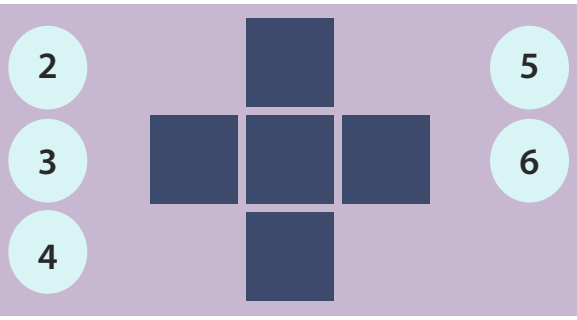

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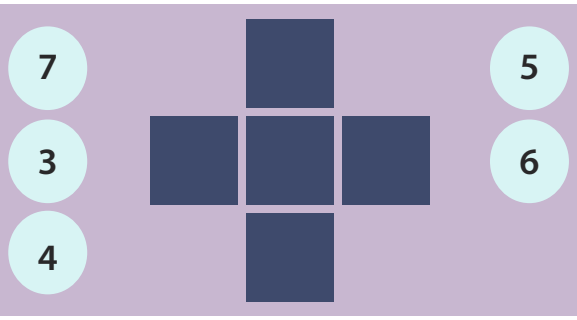

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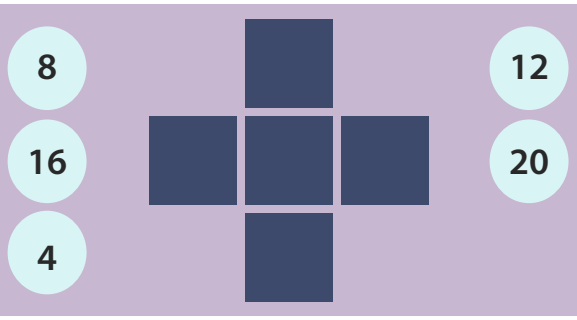


LEARNING THROUGH PLAY

Number Stories

Number stories are a great way to relate mathematics to real life for young children and you can integrate them in every maths curriculum from early childhood through high school. They are engaging for children and encourage them to think about how numbers work in the 'real' world.

To start with, make up a number story and 'act' it out in the centre of your classroom, the 'stage'. For example:

- ✓ One day, 3 boys went to play in a park. (3 boys walk to the stage)
- ✓ After lunch, 2 more boys came to play with them. (Call 2 more boys to the stage)
- ✓ How many boys are now playing in the park? (Count the boys together to get 5)

A subtraction example:

- ✓ 7 girls had a meeting. (Call 7 girls onto the stage)
- ✓ 2 of them got hungry and went home for lunch. (Ask 2 girls to go back to their seats)
- ✓ 2 girls got sleepy and went home for a nap. (Pull out 2 more girls away)
- ✓ 1 girl saw her father and went with him. (Take 1 more girl away)
- ✓ How many girls are left at the meeting? (Count the girls together to get 2)

Once the children understand how it works, encourage them to make up their own number stories for each other and ask them to write it out. You can also extend the same by asking the children to write the equations for their made-up statements in stories and use it across various other mathematical concepts.

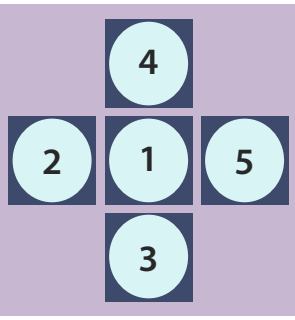
BRAIN TEASERS

1. In a year, there are 12 months. Seven months have 31 days. How many months have 28 days?
2. What are the next three letters in the following sequence? J, F, M, A, M, J, J, A, __, __, __

ANSWERS

Math Puzzles

A



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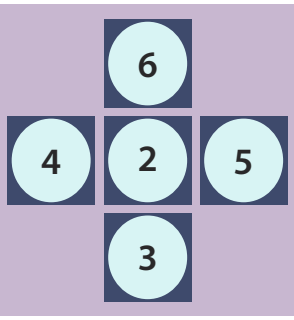

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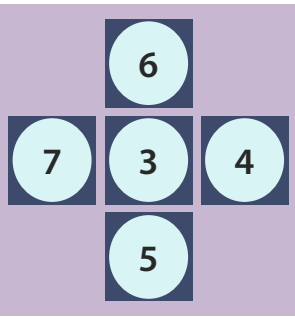

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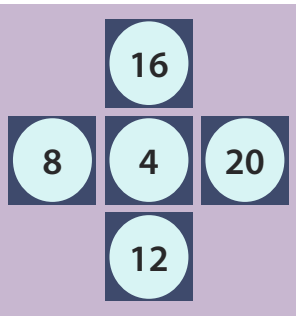


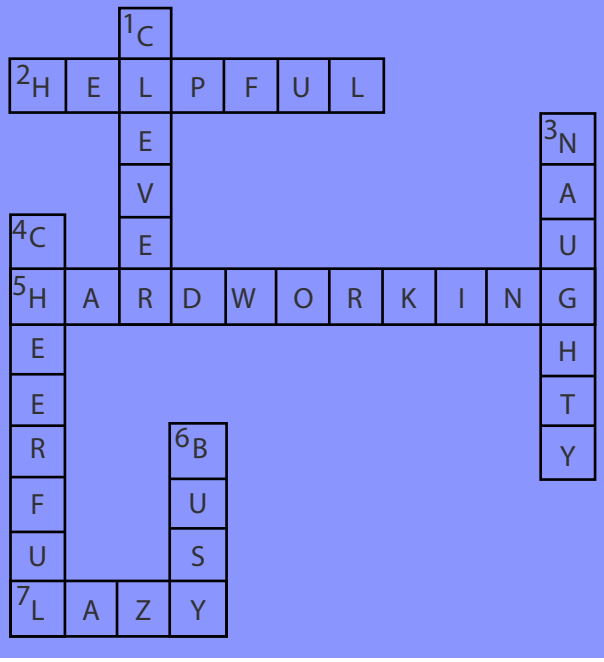
Quiz: Water

1. Hydrogen and oxygen
2. Ice
3. True
4. Clouds
5. The Nile River
6. More – Around 70%
7. True
8. Expand
9. H2O
10. Marina Trench

Brain Teasers

1. They all do.
2. S, O, N. This is a sequence of the first letters of the names of the months of the year. September, October, November are the next three months of the year.

Crossword Puzzle: Personality Adjectives



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