SHRIRAM Foundation
EMPOWERING LIVES

chalk board

Monthly newsletter for teachers – August 2017

A LETTER TO TEACHERS

Dear teachers,

Greetings from Shriram Foundation!

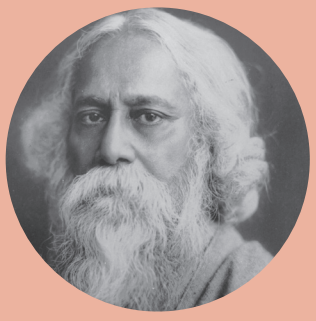
You are well into the first term. By now you know which students are struggling to perform and keep up with the rest of the class. What can you do for them? It is important to remember that every parent comes to the school in good faith that his son or daughter will get the best attention. It is therefore our duty to do our best for every child, even if the child does not respond.

What other ways can we use to make such children understand? How can we help them progress? Activities can help such students learn. Individual attention and additional practice can help them move ahead. Please do plan to spend some time every day with lagging students. More than the others, these students need you.

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

Warm regards
Editor

DID YOU KNOW?



1. Rabindranath Tagore, who wrote India's national anthem, was the first Indian to win a Nobel Prize. He won it for literature in 1913. He was the first Asian to win a Nobel Prize for Literature.
2. The first version of the "Jana Gana Mana" was sung in a convention of the Indian National Congress in 1922 at Calcutta.
3. A formal rendition of the National Anthem takes about 52 seconds by law.
4. It was only on January 24, in the year 1950 that this song was officially declared as India's National Anthem.

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.

"Life is 10% what happens to you and 90% how you react to it.

-Charles R. Swindoll

"For to be free is not merely to cast off one's chains, but to live in a way that respects and enhances the freedom of others."

-Nelson Mandela

THEME FOR THE MONTH — Independence Day

India celebrates its Independence Day on August 15th. Independence Day is we pay homage to our leaders and those who fought for India's freedom in the past. We have listed a few activities below that you can do with your students to celebrate and feel proud of our independence.

1

Our national sport may be hockey and the most popular may be cricket but this Independence day try organizing some traditional Indian sports.

- ✓ Gillidanda – This game is a great local game played all over India. All you need is a gilli, a small oval shaped structure usually made of wood, and a danda or stick.
- ✓ Kancha – A fun game with marbles. Basically the players have to hit the selected target 'kancha' using their own marble. The winner takes all kanchas of the other players.
- ✓ Kho kho – Kho kho in some ways is like musical chairs. You'll need to have enough space to arrange a line of at least 5 people spread out over a distance.

2

The First Stamp of Independent India was issued on the 21st of November, 1947. It depicts the Indian Flag with the patriots' slogan, Jai Hind (Long Live India), on the top right hand corner. It was valued at three and a half annas. You can get your students to create their own stamps with the template given, based on what they believe represents independent India.

3

Here is a fun 'Independence Day Word Search' you can ask your Upper Primary students to solve.

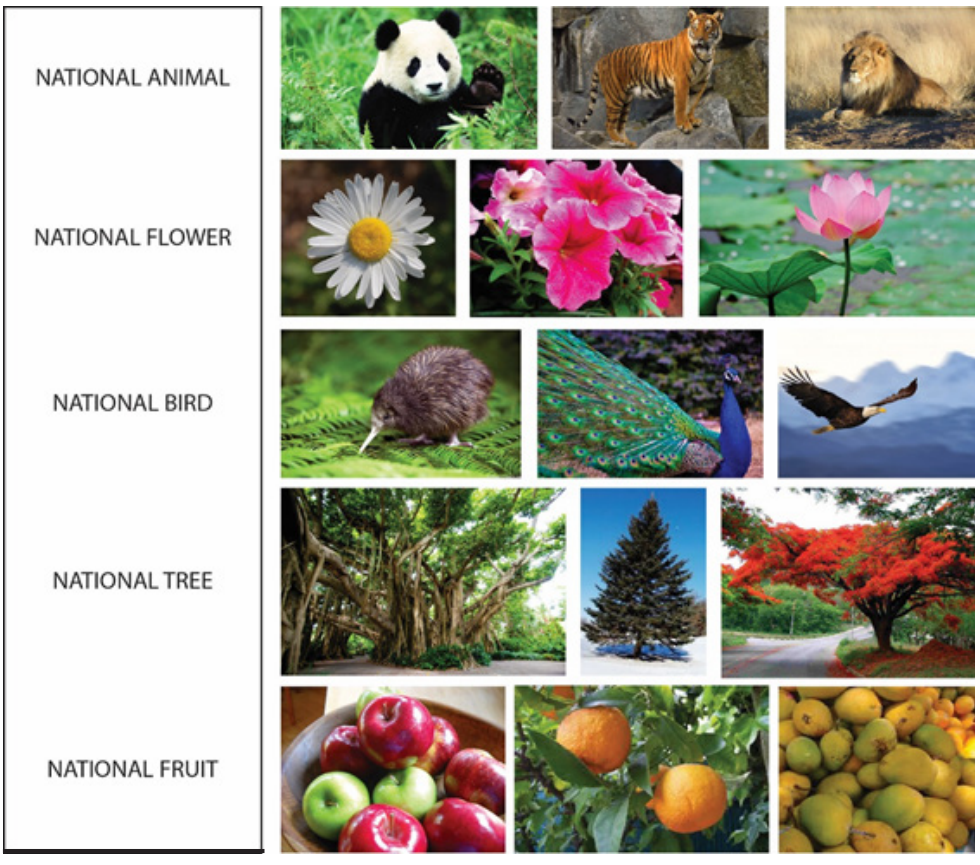
B	R	I	T	I	S	H	Q	D	U
I	Q	S	W	A	R	A	J	F	H
K	T	X	S	I	G	G	F	L	H
A	W	A	P	D	I	V	M	A	D
F	H	C	P	E	N	T	A	G	N
L	J	D	N	J	D	E	H	L	E
Q	H	H	B	U	I	I	A	T	T
Z	B	H	A	R	A	T	T	G	A
X	G	Z	B	O	N	I	M	G	J
F	R	E	E	D	O	M	A	D	I

Word List

INDIAN
SWARAJ
FREEDOM
MAHATMA
FLAG
NETAJI
BHARAT
BRITISH

4

There are various national symbols of india that identify it as an independent nation. You can show the picture grid to your primary students and ask them to identify our national symbols.



LEARNING THROUGH GAMES — Grab Bag Numbers

The game described here will help build concepts of numbers and quantities, in children. Although it is a simple count and match activity, it also extends the child's concept learning and helps associate abstract numerals and real physical objects.

- ✓ This is a game for pre-primary children. Take 9 chits of paper and write a different number, from 1–9, on each. Fold each in half. Put them into a bag. Give every student a handful of seeds or beads. (Buttons or small smooth stones also work well!).
- ✓ Call one child at a time and ask each to pick a chit from the bag. Ask them to look at the number on their chit, and then put as many seeds/beads down on the table as the number written on their card. For example, if a child picks the number five from the grab bag, he/she should place five seeds next to the chit on the table.
- ✓ Teaching numbers in the early years is primarily building the understanding that numbers refer to quantities. The sequence and progression of numbers indicates an increase or decrease, or a movement from smaller to bigger or vice versa. Understanding these concepts of big and small, increase and decrease, of quantities and counting is very important .

The game can be extended for other classes by including more numbers or even number names. It can also be used for introducing addition and subtraction as concepts.

TEACHER TIP — Participation

Participation is an important life skill and it improves only with practice. All teachers should encourage students to participate in classroom discussions and conversations. Giving positive feedback on students' comments and responses will encourage them to open up and have discussions even among shy students.

For Upper Primary and High School students, a good way to begin productive discussions is by asking the students to write down topics that they can talk about. It can be anything from problems, doubts, interesting facts or any basic ideas that they would like to bring up. Creating broad questions based on these topics will allow the children to talk with no fear of a right or wrong answer. Building a safe environment in which kids are listening to each other and responding to each other will teach them to be respectful of others.

The goal of increasing participation is not to have every student participate in the same way or at the same rate. Instead, it is to create an environment in which all participants have the opportunity to learn and in which the class explores issues and ideas in depth, from a variety of viewpoints.

IN THE NEWS — Mt. Everest

It is important for children to know what's happening in the world around them. You may think of conducting a "News Discussion time" in your classrooms once a week! To start with, you can use this small snippet!



Nepal will spend two years measuring Mount Everest because its official height may have changed following the April 2015 earthquake in the region. The country's Department of Survey says the mountain, measuring 8,848 metres (29,029 feet), may also have shifted its geographic position. The two-year task will also assess the impact of climate change on the mountain.

A team of technicians will measure the peak from Basghari, Udayapur to Lukla in 2017. In the meantime, to carry out measurement at high altitude, Sherpas will be trained to carry equipment from base camp to the peak. There are claims that the mountain's famous Hillary Step - a rock face that is the last obstacle for climbers attempting to reach Everest's summit - has collapsed. A British climber said that it had been destroyed by the Nepal earthquake. However, some Sherpas said that it was still there but covered in snow. Nepal hopes that its fact-finding mission will solve these mysteries.

STORY OF THE MONTH — Gertrude Ederle

Gertrude Ederle was an American swimmer who achieved fame when she competed in the 1924 Olympics and became the first woman to swim across the English Channel in 1926.

"I just knew if it could be done, it had to be done, and I did it."

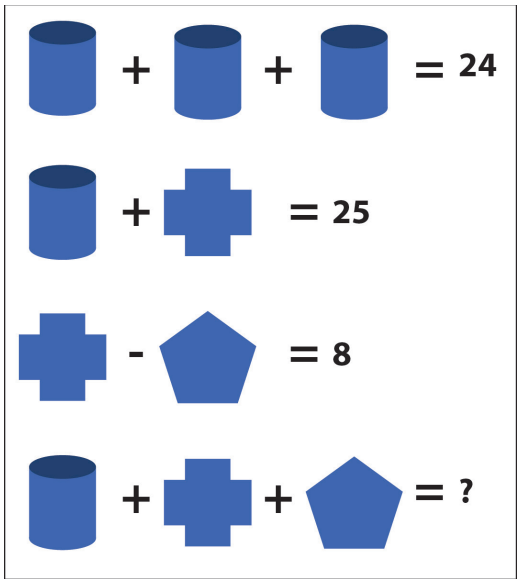
- Gertrude Ederle

From a young age she was passionate about swimming, which she learned at the local public pool and at the New Jersey beach. Competing locally, she had her first win at the age of 16, and between 1921 and 1925 she held 29 records. In 1924, Ederle swam at the Olympic Games in Paris, where her freestyle team won three medals.
In 1925, she began training to swim across the English Channel, the 21 miles of water between England and the European mainland. Five male swimmers had already crossed the channel but she wanted to be the first woman to achieve this goal. Ederle's first attempt to swim the channel, in 1925, was disqualified halfway.

She made her second, successful try on August 6, 1926. Once Ederle entered the water, her progress through rough waves and powerful currents was supervised by a tugboat that sailed nearby. She arrived on shore at Kingsdown, England, after 14 hours and 31 minutes, beating the record set by the previous male channel swimmers. Her record remained unbroken until 1950.

BRAIN TEASER

Here is a puzzle in which each shape represents a particular number. Ask your upper primary children to find out which shape represents which number and finally arrive at the desired sum.



PUZZLE

Many words end in 'ology'. The suffix 'ology' indicates a field of study. Ask the children to find the following words using the clues given.

1. _ _ _ _ _ _ _ OLOGY – The study of humans
2. _ _ OLOGY – The study of life
3. _ _ _ _ _ _ _ _ OLOGY – the study of the eyes
4. _ _ _ _ _ OLOGY – the study of heart
5. _ _ _ _ _ OLOGY – the study of time
6. _ _ _ _ OLOGY – The study of water
7. _ _ _ _ OLOGY – The study of rocks
8. _ _ _ _ _ _ OLOGY – The study of birds
9. _ _ _ _ OLOGY – The study of rays, usually ionising radiation
10. _ _ _ _ _ OLOGY – the study of earthquakes
11. _ _ _ OLOGY – the study of God
12. _ _ OLOGY – the study of animals
13. _ _ _ _ OLOGY – the study of vocal sounds
14. _ _ OLOGY – The study of the Earth
15. _ _ _ _ _ _ OLOGY – The study of ancient history

ANSWERS

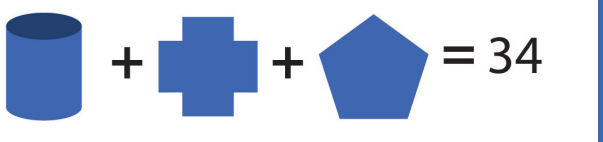
WORD SEARCH - Independence Day

B	R	I	T	I	S	H	Q	D	U
I	Q	S	W	A	R	A	J	F	H
K	T	X	S	I	G	G	F	L	H
A	W	A	P	D	I	V	M	A	D
F	H	C	P	E	N	T	A	G	N
L	J	D	N	J	D	E	H	L	E
Q	H	H	B	U	I	I	A	T	T
Z	B	H	A	R	A	T	T	G	A
X	G	Z	B	O	N	I	M	G	J
F	R	E	E	D	O	M	A	D	I

PUZZLE

1. ANTHROPOLOGY
2. BIOLOGY
3. OPHTHALMOLOGY
4. CARDIOLOGY
5. CHRONOLOGY
6. HYDROLOGY
7. LITHOLOGY
8. ORNITHOLOGY
9. RADIOLOGY
10. SEISMOLOGY
11. THEOLOGY
12. ZOOLOGY
13. PHONOLOGY
14. GEOLOGY
15. ARCHAEOLOGY

BRAIN TEASER



* Published by Shriram Foundation, 5th Floor, Mookambika Complex, No. 4, Lady Desika Road, Mylapore, Chennai - 600004.
* For Private Circulation Only.

Invention of the Month: Electric Battery

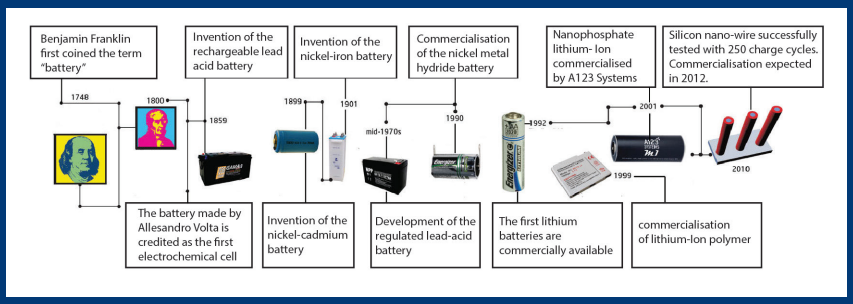
In 1799, Alessandro Volta developed the first electrical battery. This battery, known as the Voltaic Cell, consisted of two plates of different metals immersed in a chemical solution. Volta's development of the first continuous and reproducible source of electrical current was an important step in the study of electromagnetism and in the development of electrical equipment. He was born in Como, Italy in 1745. Volta, even at age 14, knew his real interest was physics. Like many scientists of the time, he was especially fascinated by electricity.

Volta's early work had already made him a well-known scientist, but his greatest contribution to science was the voltaic pile, which came out of a scientific dispute with Luigi Galvani.

In 1780, Galvani, an Italian physician and anatomist, was experimenting with dissected frogs' legs and their attached spinal cords, mounted on iron or brass hooks. In most of his experiments, the frog leg could be made to twitch when touched with a probe made of another metal. These observations convinced Galvani that he had found a new form of electricity, which was being generated by the frogs' muscles. He called the phenomenon "animal electricity." Volta argued that the frogs' muscles were simply reacting to the electricity, not producing it.

Volta realized that the crucial feature of Galvani's experiments was the two dissimilar metals–the iron or brass hook and the probe of some other metal. The metals were generating the current, not the frog parts. Instruments available at the time could not detect weak currents, so Volta, always a dedicated experimentalist, often tested various combinations of metals by placing them on his tongue. The saliva in his mouth, like the frogs' tissue, conducted electricity, resulting in an unpleasant bitter sensation.

In a letter dated March 20, 1800, addressed to Joseph Banks, president of the Royal Society of London, Volta first reported the electric pile.

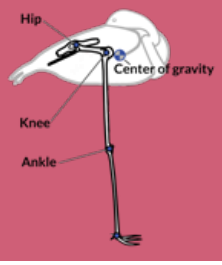


DID YOU KNOW?

Flamingos have balance aids built into their bodies that let them stand on one leg with very little muscle effort. The bird appears more stable on one leg than on two legs and even when it is sleeping!

A flamingo's hip and knee are located high up inside its body. What bends in the middle of the long flamingo leg is not a knee, but an ankle.

It is also interesting to find how the bird distributes its weight. This factor also makes it stable on one leg. The flamingo's centre of gravity is close to the inner knee. That's where the bone starts to form the long column to the ground. This is what makes the flamingo balance on one leg. In fact, tests with dead birds showed the body was floppier and less stable when researchers tied it upright on two legs instead of one.



Source:https://www.sciencenewsforstudents.org/article/how-flamingo-balances-one-leg

Science At School
Science Newsletter for Teachers

"The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction."
— Rachel Carson

In the classroom: *After Image*

What happens when you look at one colour for a long time? Why do you see the after-image that you do? Show your students how the colours of an after image are made.

To do this activity you will need: • Computer screen with this image or a colour printout of the image shown below. • Stopwatch or clock that counts seconds • Coloured pencils and paper

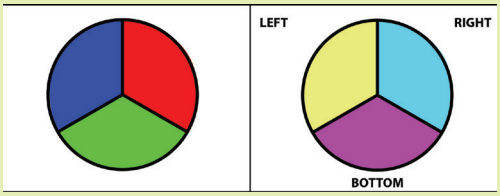
INSTRUCTIONS

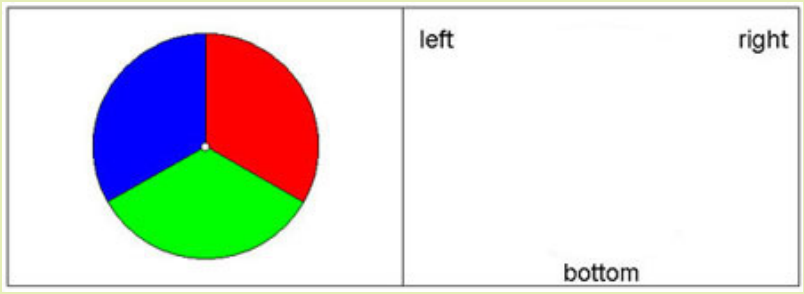
1. Take a print out of the image given on the right and ask your students to look at it for 30 seconds, focusing on the white spot in the centre. Another student may help keep track of the time.

2. Immediately after looking at the image, they should look at the white space to the right of the image.

3. They can then use coloured pencils to draw the after-image.

The Resulting After-Image





Here are the expected results:
The students should see an after-image that looks like the image shown on the left. The colour of each piece of the circle in the after-image is a mixture of two of the three additive primary colours. This is because the cone cells that were used to see the original colour became fatigued, and only the two other cone cell types could perceive colour when seeing white light. Mixing two of the three primary colours results in the following secondary colours:

- Red and green gives yellow.
- Red and blue gives purple (including magenta).
- Green and blue gives cyan.

The longer you look at a colour, the longer the after-image will persist because it takes longer for the cone cells to recover.

Special Feature: Science Express

Science Express is an innovative mobile science exhibition started by the Department of Science & Technology, Govt. of India, mounted on a 16 coach AC train. With the objective of encouraging interest of the young people in the field of science and technology, the exhibition on wheels – Science Express, was launched from Delhi Safdarjung Railway station on October 30, 2007. Till date, this unique mobile exhibition has completed its 8 phases which includes 4 phases of 'Science Express', 3 phases of 'Biodiversity Special' (SEBS) and one phase of 'Climate Action Special' (SECAS).

So far, it has travelled 1,41,800 km, had 455 halts, and in 1602 exhibition days, more than 1.56 crore people, primarily students & teachers, have visited it. It has thus become the largest, the longest running and the most visited mobile science exhibition and has six entries in the Limca Book of Records.

The ninth phase of the Science Express as SECAS II is scheduled to run from 17 Feb. to 08 Sept. 2017, To have a look at the tour schedule you can visit the following link: http://www.sciencexpress.in/tour.html.