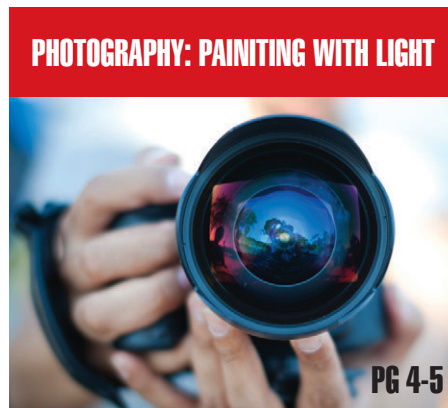


# Child Friendly News



Volume 2, Issue 19 >> Thursday, 12 March 2015 >> [Subscribe www.childfriendlynews.com](http://www.childfriendlynews.com) >> [Email childfriendlynews@gmail.com](mailto:childfriendlynews@gmail.com)

## DELHI: D FOR DANGEROUS AIR



It's not fog you are looking at, it is pollution

All of you who live in Delhi, watch out – you are breathing the most polluted air in the world. The title of the world's most polluted city belonged to Beijing, China's capital, for many years. But, new data has shown that a normal day in Delhi would be extremely polluted even by Beijing's standards. That's how far the city has fallen.

### First, the data

Air quality is measured in an Air Quality Index or AQI. Look at the table below to understand what good air quality is and where Delhi stands:

AQI Value	Quality of the air
0-50	Good
50-100	Moderate, not bad
<b>Delhi's current air quality (AQI)</b> <b>(on March 11 at 9 AM)</b>	<b>221</b>
<b>At these levels Delhi's air quality is very unhealthy.</b>	

### The main culprit

The main problem with Delhi's air is the amount of fine particles of pollution called PM 2.5 (PM stands for Particulate Matter) in its air. Each particle is 100 times smaller than human hair and is released by cars and

vehicles, burning of waste and other materials as well as from factories. Delhi has more vehicles (cars, buses, trucks, autos, vans etc.) than all the other big cities of India put together. The pollution released by these vehicles is killing Delhi's air.

### Who is the most affected?

Obviously everyone living in Delhi is affected by this. But some are hurt more than others:

- According to a study done by the environment group Centre for Science and Environment (CSE), those walking, cycling and using public transport are experiencing twice or even four times the level of pollution present in the general air
- Old people and children are the worst affected. This is especially true of those who suffer from asthma (breathing problems)



The main cause of Delhi's pollution – its vehicles

### What is to be done?

Courts of law are discussing various cases related to Delhi's pollution but no action has been ordered yet. Organizations such as the CSE have been asking for strict action such as:

- Removing old and polluting vehicles from Delhi's roads
- Adopting higher pollution standards for cars (so they release fewer particles of pollution)
- Limiting the number of vehicles on the roads by making parking costlier and charging higher taxes on people who own multiple (more than 1) vehicles
- Getting people to use more public transport – as these are shared by many, there would be fewer cars on the road

Whatever the solution, it needs to be implemented fast so that we can make Delhi a more livable city!

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## DOGS CAN MAKE OUT IF YOU ARE TRYING TO FOOL THEM

**D**ogs are smart animals that can be trained to work alongside humans. But they also use this intrinsic intelligence to judge if they can trust a human.

During a study done in Japan with 34 pet dogs, the dogs were first shown a container of dog treats by pointing. In the second round using the same dogs, the same researcher pointed to an empty container. By the time it came to the third round, when a container containing treats was pointed at again, the dogs were no longer sure if the researcher was trustworthy and only few of them listened to him and went towards the treat container.

It appeared that the actions of the researcher had made the dogs suspicious of his behavior and they no longer trusted him as before. The experiment shows that dogs do not just blindly follow but build opinions of specific people based on their actions which are stored in their brains for future use.

So, next time you try and fool your dog, remember that if you do it too often, your pet may stop listening to you!

Your dog may not be quite as obedient if it feels it can't trust you



## CUT FORESTS, LOSE RAIN

**W**e've always known that cutting down forests leads to less rainfall. But now, researchers at the Indian Institute of Science in Bangalore (IISc) have created a climate model that shows that cutting down forests, especially in the Northern hemisphere (the half of the globe above the Equator) can have a huge impact on India's rainfall.

The research team, which included Govindasamy Bala, a professor at the IISc's Divecha Centre for Climate Change, found out that large amounts of deforestation (cutting down of forests) had reduced India's south-west monsoon rainfall by 18% (that's almost one-fifth) over the years. According to their research, India was the most affected country in the Northern Hemisphere.



## MAKING OXYGEN ON MARS

**A**ny human trips to Mars or attempts to set up a human colony on the red planet (like the Mars One project we wrote about in the last issue) will all depend on the production of oxygen on the planet. Scientists at the Massachusetts Institute of Technology (MIT) in the United States are working on a way to do just that through Project MOXIE (short for Mars Oxygen in Situ Resource Utilization Experiment). MOXIE will in fact be taken to Mars on NASA's next unmanned rover that will reach the red planet around the year 2020.

### How will MOXIE work?

The Martian atmosphere has just 0.2% oxygen, compared to Earth's 21%. 96% of Mars' air consists of carbon dioxide and would suffocate anyone who tried to breathe it. MOXIE will take in carbon di-oxide and separate the oxygen molecules from it. These will be used to produce oxygen gas that could be used by human explorers for breathing. It will also be vital (very important) for creating a large store of liquid oxygen for use in the rocket on the return trip to Earth.

The MOXIE machine being sent in 2020 is a small scale model for experimental purposes. The final one for use by actual humans on Mars will have to be much, much bigger.



Humans will need oxygen to survive on Mars





## OWLIE TALKS TECHNOLOGY

## AND THE WORLD CUP WINNER IS...

For the answer just visit the website of the search engine Bing (www.bing.com) and type in ICC Cricket World Cup. The search engine has a powerful prediction engine that offers match by match predictions for scheduled World Cup games (and yes, once it knows who the finalists are, Bing will also predict the winner).

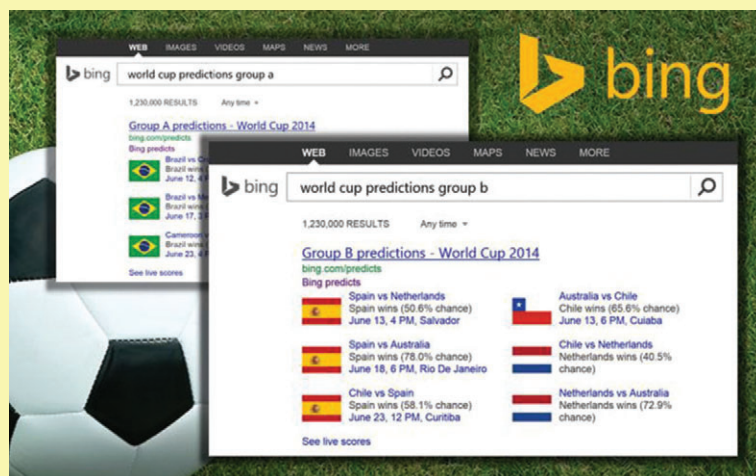
This is no flash in the pan. Bing, the search engine owned by Microsoft, has been coming out with accurate predictions for television game shows, sports tournaments and even the Oscar movie awards where it got 20 out of the 24 winners right (in 2014, it did even better and got 21/24 right).

**How does Bing do this?**

To arrive at its predictions, Bing uses the same technology that powers its search engine and helps it come up with useful links when we type in a search string such 'timings for Red Fort,' or 'restaurants on Brigade road, Bangalore'. When it came to television shows like 'American Idol' where a television audience from all over the United States votes for a favourite performer, Bing's engineers realized that kind of searches on a person's name would indicate their popularity and therefore that person's chance of winning. For the Oscar Awards too, general popularity is an indicator to the way the votes fall for the Oscar winners.

**The tough calls**

For sports results, team popularity alone may not be important – on that one criterion alone, the Indians could be predicted as World Cup winners! Here, Bing has to also look at data on how strong each team is, their past results etc.



## WINNER?



During the soccer World Cup last year, Bing came out with near perfect predictions, even predicting an Argentina-Germany final and forecasting that Germany would be the eventual winner. Craig Beilinson of Microsoft explained at that point how they came up with accurate predictions: "... the (Bing) team has spent a lot of time looking into what would make an accurate prediction, the previous record of these players playing together, the kind of turf are they playing on and what are they used to, how far away are they from Brazil, does this really feel like a home or away game. Taking all of the data and having it come up with a set of predictions was our goal."

With this kind of gold-plated (a term meaning excellent) reputation, you better be watching

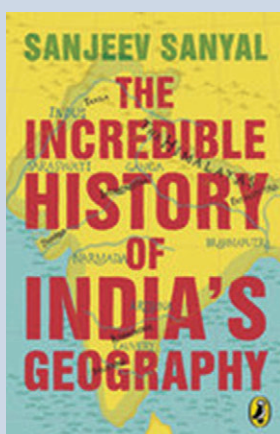
those Bing predictions for the cricket World Cup.

## THE BOOK NOOK

**The History of India's Geography by Sanjeev Sanyal**

Did you know that India is the only country that has both lions and tigers? That we still greet other like the ancient Harappans did, with a namaste? If these tidbits of information appeal, you must read Sanjeev Sanyal's book which offers a unique take on India's history and geography and how each has impacted the other.

From the ancient Harappans to tracing the geography of epics like the Ramayana and the Mahabharata, Sanyal's book is like no history book you have ever read. Yet by the end of it, you are likely to be better informed on our ancient history, the dynasties



that ruled India as well as more modern events such as way in which states like Kashmir and Goa came to be part of united India.

The book is a detailed one and may be more suited to advanced readers. But don't let that throw you. You can even dip into it, one chapter at a time and come away the richer!

**Price:** Rs. 250

**Available at:** Most bookstores and online stores



It's been called painting with light. And not without reason. The effect of light on film or a digital surface is used to capture frozen moments of time, some so beautiful, we call them works of art. Find out more about the science (or art?) of photography.

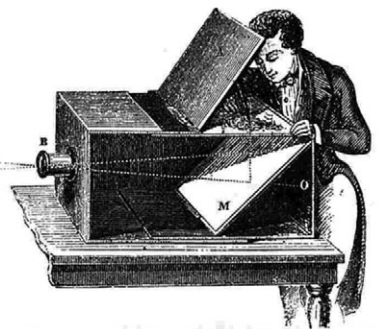


# PHOTOGRAPHY: PAINTING WITH LIGHT

## The camera obscura

The camera obscura or the pinhole camera pops up in science projects even today, so it is hard to believe that this was the first kind of camera ever invented by the ancient Chinese and Greeks. The camera is basically a box that is completely closed except for a small hole that allows light to pass through it, and displays an upside down image of what is front of the box. But these cameras did not have any way of storing the image that was created for later viewing.

Photo Courtesy: Wikimedia Commons



An artist using an 18th-century (1700-1799) camera obscura to trace an image, one way in which the image could be preserved



## The digital age

Computer technology influenced the world of cameras and at the start of this century (around 2000) digital cameras began to get popular.

These cameras store the photos they take on memory cards (tiny metal pieces as big as an adult's thumb) or in the 'memory' of the camera, much the same way you store documents and images on a computer.

## The cellphone camera

From a device used occasionally (once in a while), the camera now occupies pride of place in everyone's pocket, thanks to cellphones, most of which have cameras. Some of these cameras are very powerful and can capture very sharp images.

Photo Courtesy: Wikipedia



An early camera made by Kodak that used film.

## The age of film

It was only in 1839 that Frenchman Louis Daguerre came up with the daguerreotype where images could be captured on a brightly polished silver-coated plate or block.

But photography was made popular only when companies like Kodak began selling photographic film, a roll of which could be inserted into the camera to capture photos. Such film-based cameras remained popular until about 15 years ago.





# THE GREAT PHOTOGRAPHERS

Meet some of the best photographers from India and the world

## Henri Cartier-Bresson

French photographer Henri Cartier-Bresson is considered the father of photojournalism, which is the art of communicating the story through pictures instead of text. He was an expert at 'candid' shots where expressions and actions of people and things are captured spontaneously without being stage-managed.



<< Look how precise the shot is – it is taken at the exact moment when the cycle looks most dramatic, as the effect would rather be lost if it was behind the bars. The curves of the stair rail bring in a sense of movement that is echoed by the blurred cyclist. Remember, this photo was not staged but taken spontaneously by Cartier-Bresson

## Ansel Adams

American photographer Ansel Adams was also an environmentalist who created stunning black and white images of the American landscape. He specialized in large format photography which helped him capture the scale and grandeur of nature.



<< Ansel Adams' 'The Tetons and the Snake River' is a stunning example of his highly detailed landscape photography. The photograph was set into space on Voyager 1 and Voyager 2 in 1977 as part of a set of records containing sounds and images showing life and culture on Earth. The records were meant for aliens to introduce them to life on Earth.

(below) 'On a train to Darjeeling' captures the moods of travellers on an Indian train. Notice how the technique merges the people and the landscape.

## Raghu Rai

Indian photojournalist Raghu Rai is a follower of Cartier Bresson and is perhaps the most famous of all contemporary photographers. He specializes in photographs of India and has written 18 books, including Raghu Rai's Delhi, The Sikhs, Calcutta, Khajuraho, Taj Mahal, Tibet in Exile, India, and Mother Teresa.



<< The higher the megapixel, the more details you will be able to see in the photo

## Understanding Megapixels

You would have seen advertisements for camera phones and digital cameras that boast of a camera's Megapixels. These indicate the amount of detail being captured by the camera lens. So, bigger the number of megapixels, the sharper will be the image and bigger the size it can printed.

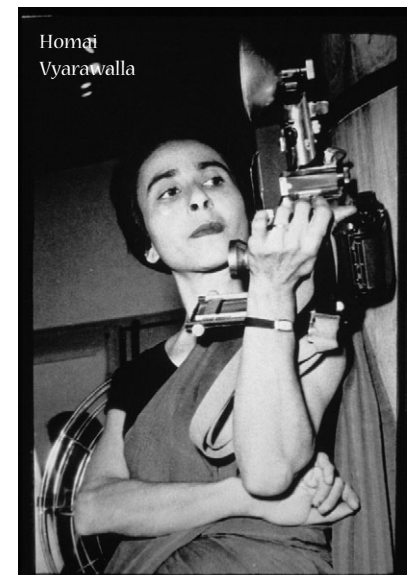


## The 'Selfie' comes of age

The Oxford dictionary accepted the word 'selfie' recently, defining it as 'a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media.'

## Homai Vyarawalla

Homai Vyarawalla was a photojournalist who worked in the first 30 years following India's independence. It was an unusual profession for a lady, but that didn't stop Vyarawalla from taking famous photos of India's leaders. Her favourite subject was Jawaharlal Nehru, the first Prime Minister of India.







## WORLD

# On wings of sun, here comes Solar Impulse

A plane that can travel around the world without a drop of fuel – sounds unbelievable isn't it? But Frenchman Bertrand Piccard believed in this dream, and now, right now, he and his fellow pilot, Andre Borschbegg, are on a 35,000 kilometre trip around the world on such a journey. They are piloting the sun-powered Solar Impulse 2 aircraft which completed the second leg of its long journey and landed in Ahmedabad on Tuesday night. The aircraft has two stops and in India as it will fly to Varanasi from Ahmedabad.

### Why it is special?

Solar Impulse 2 is no ordinary aircraft – it is completely powered by solar energy – in other words, the heat of the sun charges its special batteries that help the craft take off and fly. The solar panels, through which the heat of the Sun is absorbed, are mounted on the aircraft's wings. While there have been solar-powered aircraft before, this is the first time that such an aircraft is attempting a massive around the world journey.

Solar Impulse 2 is not like the jet planes you see at Indian airports. It flies slower and the journey from Abu Dhabi in the United Arab Emirates (UAE) to Ahmedabad (which would take about 2-3 hours in a regular plane) took the whole day. The full circuit of the Earth will take nearly five months and some legs of the journey over the Pacific Ocean will call for five days



Solar Impulse 2: 35,000km journey around the world



Source: Solar Impulse

and five nights of non-stop flying.

### What's the goal?

What Piccard and Borschbegg want to accomplish through this journey is to spread awareness about the environment and the need to turn to 'greener' ways of doing things. Aircrafts are among the most polluting means of transport and the Solar Impulse team wants to show that it is possible to fly on solar energy. Solar Impulse is an experiment right now, but its success may show the way to 'greener' aircraft in the future.

## WORLD

### The Watch to watch

Apple Computers, the maker of the iPhone and Mac range of computers and laptops, has launched its much awaited smart watch. As the name tells you, the watch has a computer-wired brain inside, enabling the wearer to perform many tasks.

The Apple Watch can display email, messages, photos and even the wearer's heart rate. All this in addition to telling the time, of course. It is able to do all of this as it works by connecting to the user's smartphone through wireless technology. So, people will have to use it along with their Apple smartphones, though it will save them the bother of fishing out the phone to look at a message – all they need do is glance at their wrist.



The cheapest Apple Watch will cost around Rs.22,000 but it is not going on sale in India right now

## INDIA

### A nest site becomes a burial ground

Gahirmatha Beach in Orissa is the world's most important nesting ground for the endangered Olive Ridley turtle. Every year in winter, thousands of these turtles come ashore to lay eggs. But this year the beaches along the Orissa coast have been scattered, not with Ridley eggs but hundreds of dead turtles.

Newspaper reports from the area said that although the official number of dead turtles was placed at 800, the actual number of deaths could be in the thousands. Environmental activists (people who work for the cause of the environment) said that the deaths had been caused by fishing boats in the area. Although fishing is not allowed near the coast at nesting time, fishing boats continue to work in the area, and deaths may have been caused by turtles slamming into the boats.

Further south at Vizag in Andhra Pradesh, fewer turtles have been coming ashore to nest. This may be due to the erosion of the beach due to the cyclone Hudhud that damaged the area a few months ago. Nesting may also have been affected by increased human activity on Vizag's beaches.

A dead turtle







It's a great turnaround for us. We feel really proud,  
said Bangladesh captain  
—Mashrafe Mortaza on his team's victory over  
England



News

CHILD FRIENDLY NEWS

12 March 2015

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7

INDIA

## A very special Holi

**H**oli, the festival of colour that signals the start of warm weather in India, was celebrated in many parts of the country last Friday. But few celebrations were more special than what unfurled in the city of Vrindavan, a famous religious centre in Uttar Pradesh that is connected to the Hindu god Krishna. There, hundreds of widows (women whose husbands have died) live out their lives – it's a simple and sometimes lonely life for these women through the year. Until Holi arrives. Then, they break into dance and play, and even the white clothes that the widows of Vrindavan wear become infused (filled with) colour. Holi hai!



SPORTS

## Saina stumbles at the end, settles for silver

Had she won Saina Nehwal would have made history for no Indian women shuttle player has ever won the All England Open, one of the most important badminton tournaments in the world. On Sunday, she however lost to Carolina Marin of Spain and had to settle for the silver medal. Saina began the match well by winning the first game and was up 11-9 in the second when she lost focus and the game began to go Marin's way. Marin won the second and third games to wrap up the match 16-21, 21-14, 21-7. Saina has never lost to Marin before so hopes were high that she would win the All England. But as she herself admitted, nervousness cost her the match. "I just lost focus and began hurrying, which was not right," Saina said later. Only two Indian men have ever won the All England Open – Saina's former (previous) coach Pullela Gopichand in 2001 and Prakash Padukone in 1980.



SPORTS

## The march of the Minnows

The World Cup is entering its final and most exciting phase – the knockout matches are almost over and the quarterfinals loom. Looking back, some of the most exciting teams of the tournament have been the un-fancied minnows (weaker ones) like Ireland and Bangladesh.



### The Irish spirit

Ireland is not yet a full-fledged cricketing nation (it is an Associate member of the International Cricket Council or ICC), yet in the World Cup, it has pulled off wins against established teams like Zimbabwe and even more astonishingly, the West Indies. Even in the match against India last Tuesday (which the Irish lost), their batsmen got off to a blazing start, getting to 206 for three with around 10 overs to spare, though they were eventually bowled out for 259. If Ireland wins the game against Pakistan on March 15, they may create history by qualifying for the quarterfinals.

### Bangla tigers roar

Bangladesh pulled off a win over England and secured their entry ticket into the quarterfinals. The same loss saw England knocked out of the tournament. Over the past few weeks, Bangladesh have won 3 of their 5 matches and managed to get a lucky point from a match against Australia that was abandoned due to bad weather. The seven points earned thus has carried them into the quarterfinals. Mahmudullah Riyad has become the first player in Bangladesh history to score a century in a World Cup match.



The Irish (in green) celebrate victory over the West Indies.



The body language says it all - The Bangladesh bowler celebrates at England's cost





## Shapes in Nature

Geometric shapes occur all around you in nature.  
Can you spot the ones in these photos?



1



2



3



4

- Answers
1. Hexagons in honeybee hives
  2. Circles on shells
  3. Star-shaped seed cores of fruit
  4. Parallel lines of tree trunks

## UNSCRAMBLE THE WORDS

Re-arrange the  
alphabets to  
find the word

**Hint:** All clues are  
linked to the theme  
of math

1. MEMYRTSY

2. NCICOABIF

3. DLGONE ENMA

4. MEIPR MUNRESB

- Answers
1. Symmetry
  2. Fibonacci
  3. Golden Mean
  4. Prime Numbers

## SUDOKU TIME

			6	5	
				4	
		1	2	6	
	5	2	3		
	2				
	3	4			

Try your hand at this  
Sudoku. Remember that  
numbers 1 to 6 can  
appear only once in  
each of the six rectan-  
gles. They can also  
appear only once in  
each row and column of  
the overall square.

6	5	4	3	2	1
1	3	4	2	5	6
4	1	3	2	5	6
5	6	1	2	4	3
3	4	5	1	2	6
2	6	5	3	1	4

Answer

## FIND THE HIDDEN PICTURES

Can you find the 7 Lizards, 4 heads of ladies, 4 lemons,  
1 lady bug and 1 letter L all hidden in this picture?



## Top Reads for Kids and Young Adults

1. Pashu: Animal Tales from Hindu Mythology by Devdutt Pattanaik
2. Malgudi Schooldays by RK Narayan
3. Awful Auntie by David Walliams
4. Girl Online by Zoe Sugg
5. The Kaboom Kid: The Big Switch by David Warner
6. The Whistling Schoolboy and Other Stories by Ruskin Bond
7. Amulet: The Stonekeeper by Kazu Kibuishi
8. Back in Time by Geronimo Stilton
9. The Tiger Who Came to Tea by Judith Kerr
10. The Marsh Road Mysteries: Diamonds and Daggers by Elen Caldecott



To know more about these books and to buy them, check out  
[www.toptenbooksoftheweek.com](http://www.toptenbooksoftheweek.com)

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Child Friendly News or CFN is an age appropriate newspaper for children in the age group 7-13. The newspaper comes out every fortnight. Every issue is written using language that young readers can understand on their own interspersed with pictures and imagery. Quick explanations of difficult words and terms and boxed elements that explain concepts accompany every article — this is to help build vocabulary as well as context understanding. Special reports take up one topic in depth

while regular columns on everyday technology concepts keep children up-to-date with the world around them. A subscription costs Rs. 650 for the year.

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