Child Friendly News

CFN

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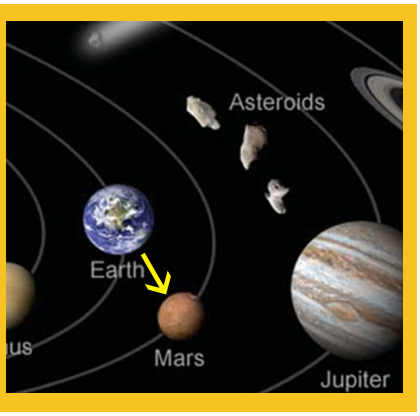
OFF TO MARS WE GO!

India's successfully launched its Mars Orbiter spacecraft on Tuesday. The craft, which is right now in orbit around earth (it is circling our planet) will reach the red planet in one year.

The successful launch of the Mars Orbiter is a huge achievement for India as only three other space powers – the United States (US), Russia and Europe have successfully sent a space craft to Mars.

The Mars orbiter was launched by the Indian Space Research Agency (ISRO) from Sriharikota on the coast of the Bay of Bengal in Andhra Pradesh at 2.38 pm on Tuesday. It was placed into earth's orbit exactly 44 minutes after that. Several crucial steps lie ahead for ISRO. The space craft's orbit has to be lifted gradually before it is finally directed towards Mars on November 30. If all goes well, the craft will complete its 300 day journey and enter Mars' orbit on September 24, 2014. This is the first time that an Indian spacecraft has been sent out of earth's gravity.


The rocket carrying the orbiter takes off from Sriharikota



The plan for Mars exploration

The Orbiter, as its name suggests will not land on Mars. Instead, it will orbit the red planet and collect scientific data. That's why it is carrying 15 kg of scientific instruments. These include:

- A Mars Colour Camera that will be used for capturing images and information about the surface of the planet
- A Lyman Alpha Photometer that will study how water loss happens on Mars
- A Methane Sensor that will look for methane gas in the Martian atmosphere. The presence of methane would mean that there are living creatures on Mars. This is possibly the most important of all the studies that the Orbiter will be doing.

THE JOURNEY TO MARS

- The first craft to get close to Mars was the Mariner 4 in 1965 that was sent up by the US. It returned with photos and data.
- The (then undivided) USSR was the first country to land a space craft on Mars in 1971
- In 2003 the European Space Agency sent up the Orbiter that sent back detailed images
- In 2012, the US landed the Curiosity rover on Mars. Since then, Curiosity has found that there was once a fresh - water lake on Mars.

The 'Curiosity' rover

THE BIGGEST LOAD CARRIED BY THE MARS ORBITER IS FUEL – 852 KILOS OF IT – THAT WILL BE NEEDED FOR THE LONG JOURNEY TO MARS.

CHILD FRIENDLY NEWS
November 07, 2013
www.childfriendlynews.com

"As long as you have a Cell Phone you're never alone"

— Stanley Victor Paskavich

HEY, I SMELL YOU CALLING!

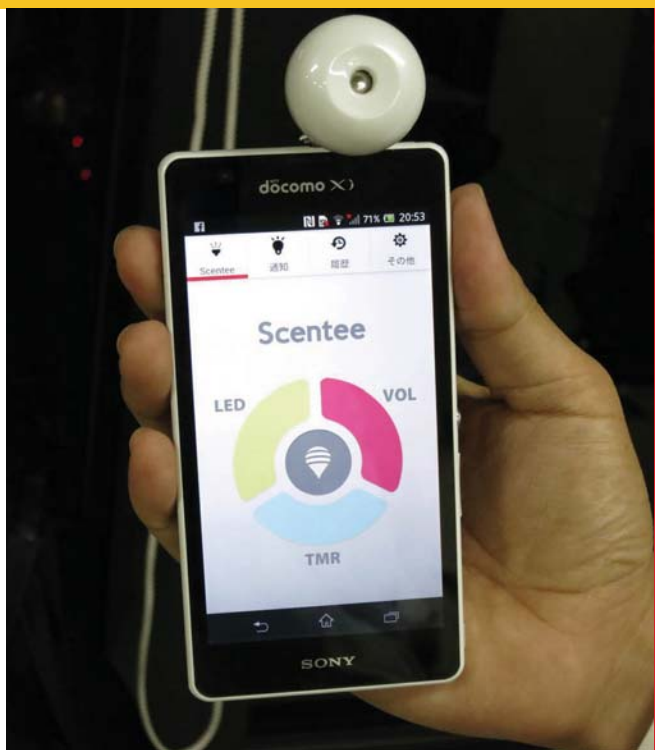
The scent of a flavor, the whiff of perfume or mouth-watering smell of food can conjure up memories of people or places you associate with that scent. What if you could now bring up that smell whenever you get a call from that person/place? Scentee, a new Japanese application (or 'app' for short) now makes that possible.

This is how it works: Let's say that your mother/father wears a particular perfume. By downloading the Scentee app on a phone and by plugging in the scent dispenser into the phone, you can program the phone to release that perfume when your parent calls. So, even if the phone is on 'silent' mode, you'd still know who is calling. The app works on smartphones like Apple's iPhone and Samsung's Galaxy phones.

The scent is released by the dispenser which plugs into the headphone jack of the phones. It comes with a 'scent chip' that lasts for 100 sprays and can be replaced once it has run out.

The app could have very interesting uses. Cooking videos could use it to show viewers how a dish ought to smell, and it could also be a polite way to receive calls in places like movie halls where one has to keep the ringer on silent mode.

It's quite likely, that as the app is developed even further, we'd soon be able to send 'smells' to each other along with emails and text messages. How nice it would be to get the smell of roses on a birthday! On the other hand, you better pray that no one sends you 'a smell present' of rotten eggs or other such foul odour!



Windmills in the sea

In 2011, soon after a terrible earthquake and massive tsunami (giant wave) destroyed parts of Japan, the country ran into another problem. The quake and tsunami had damaged a nuclear reactor, a machine that is used to produce electricity from the energy of atoms,the small particles that everything in the world is made up of (including us!) As a result, nuclear fuel began leaking dangerously, posing a huge threat (danger) to people living near by. Although the Japanese government said that the problem had been sorted out, many of Japan's nuclear reactors remain shut for inspection even today. This is a big problem for a tiny country that is heavily dependent on nuclear energy to light up homes and offices.

To reduce this dependence on nuclear energy, the Japanese have come up with a novel (innovative, new) idea. They are constructing giant windmills on floating platforms on the sea off the coast of Japan. Being an island nation, Japan has a very long coastline and has rights to use the sea for 200 miles off its shore for its exclusive use. The country now plans to use the strong winds over the ocean to tap wind energy through the windmills. Machines on other floating platforms nearby will convert the wind energy into electricity. This is the first time that windmills have been made to float on the sea. If the experiment is successful, Japan would have solved a very tricky problem.

Bats and whales are alike

One is compact (small) and flies around in the air, the other is a giant of the seas. Yet whales and bats, it would seem, are quite similar. Other than the fact that they are both mammals, of course.

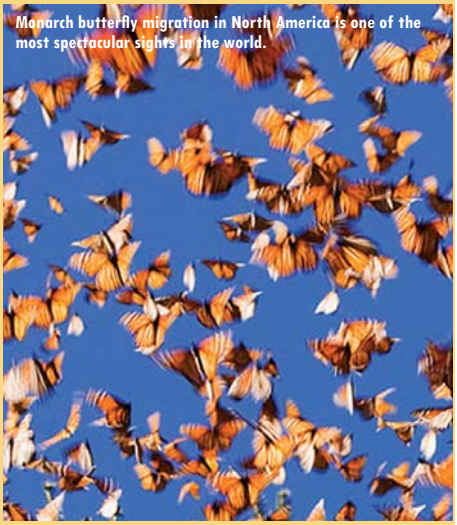
Both whales and bats use echolocation for catching prey. They emit sounds (some of which cannot be heard by the human ear) and then listen for the reflection of these sounds from solid objects nearby to estimate the nature of the objects and the distance of the objects from where they are. The way these mammals use echolocation is strikingly similar. Scientists explain this as 'convergent evolution' – a kind of evolution that happens when two completely different species develop in exactly the same way.

Nature Trail

SUCH A LONG JOURNEY

If you are lucky enough to be in the right place in South India after the monsoon, you will get to see a magical sight that is little known in India – a butterfly migration. Yes, that's right, not birds or animals but butterflies that are moving en masse from one part of the country to another. The Monarch butterfly migration in North America is world famous but, believe it or not, you can see a colourful insect migration right here in India.


A butterfly feeds en route during its annual migration in South India


Monarch butterfly migration in North America is one of the most spectacular sights in the world.

Where is this happening?

After the rains at several places in the peninsula, millions of butterflies wing their way back to the Western Ghats at the end of the south-west monsoon. From late morning to late afternoon, pretty winged insects can be seen in huge numbers, making for quite a spectacle. Newspaper reports suggest that this year, an unusually large number of butterflies were seen.

Look who's marching

On the march were two kinds of butterflies – the Dakhan Dark Blue Tiger and Double-banded Crow. During the monsoon months, these butterflies move from the Western Ghats (mountains that run parallel to the west coast of India in Maharashtra, Karnataka and northern Kerala) to the plains of Southern India. They do this to avoid the constant rain and mist in the Western Ghats. During the rainy season, they stay in the rain shadow area east of the mountains (where it is drier) and give birth to young. They then move back to the Ghats in months of October and November.

The importance of butterflies

The Western Ghats, the Himalayas, the country's north-east region and the Andaman islands are some of India's butterfly hot-spots. With 1,800 known species and subspecies of these winged beauties, India is home to 10% of the butterfly species in the world.

Butterflies are very important for pollination and so, are very important for the growth of crops. They are also a part of the food chain as many other insects and birds feed on them. If their numbers decrease, it could result in a fall in the population of their predators like wasps, spiders and birds. They are therefore crucial for the smooth functioning of natural life cycles. So, migrations like the one described above, that help them breed and increase in number, must be protected and left unthreatened.

The Book Nook

AMAR CHITRA KATHA'S NEW 'RAMAYAN'

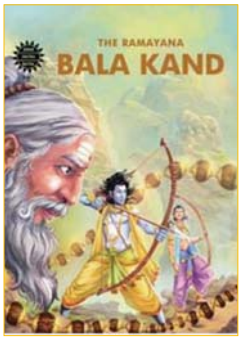
Just in time for Diwali, the company that brings out the Amar Chitra Katha (ACK) comics has launched a new detailed version of the Ramayan story.

A single volume version of the Ramayan comic has been available from ACK for many years. The new version will be more detailed and will be presented in seven volumes or 'kands.' This week, the first volume - the 'Bala Kand' - has been released. The first volume traces the story of Rama's childhood and the start of his great adventures.

The style of the new series remains the traditional ACK comic book format.

Price: Rs.295

Available at: www.amarchitrakatha.com



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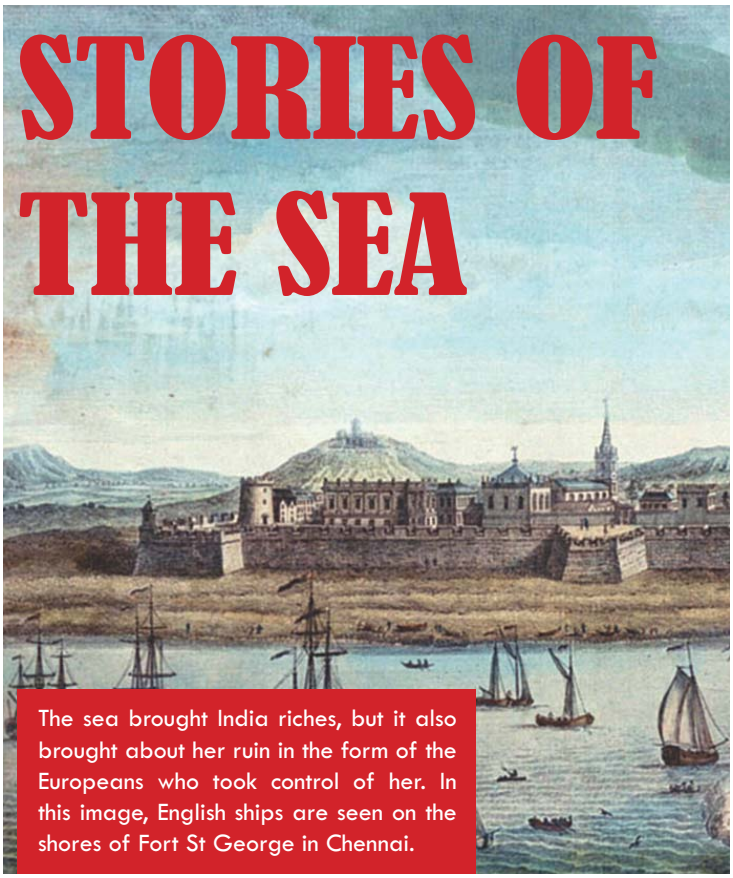
> The sea, once it casts its spell, holds one in its net of wonder forever.
> — Jacques Yves Cousteau

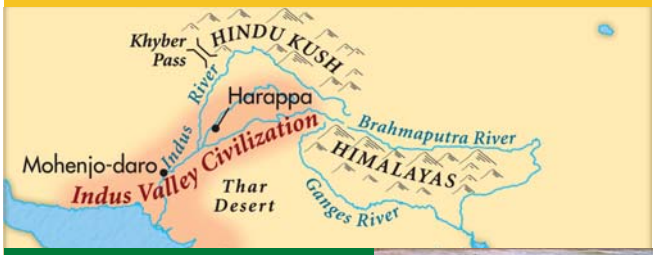
STORIES OF THE SEA



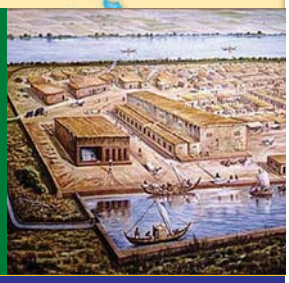
The sea brought India riches, but it also brought about her ruin in the form of the Europeans who took control of her. In this image, English ships are seen on the shores of Fort St George in Chennai.

Long, long ago..

Indians were used to sea travel more than 5000 years ago at the time of the Indus Valley civilization, which covered north-west India and parts of Gujarat state. Merchants of this period used to send wood and other articles by ship to west Asia. Soon they began trading with ancient Romans, and at the time of Augustus Caesar (after whom the month of August is named), as many as 120 ships used to set sail each day for India. While silk and precious stones were traded, the most in-demand good was spices and shiploads of spices were sent from India to Europe every month.



The world's first docks were constructed at the time of the Indus Valley civilization at Lothal which is now in modern day Gujarat. It was built on the river Sabarmati and connected by the river to the Arabian Sea. The docks were planned with proper areas to park ships, unload and store trade goods.



The first Navy

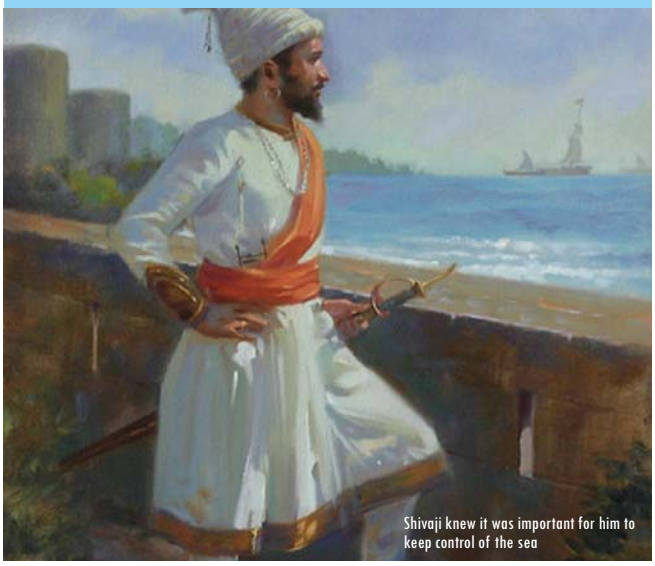
Chandragupta Maurya, the founder of the Mauryan Empire and the first king to bring most of India under his rule.

With such a massive coastline, some of India's most powerful kings thought it fit to develop a Navy. Among the most successful of them was Chandra Gupta Maurya of the Maurya dynasty who lived 2500 years ago. He built a navy and made it an important part of his army. The most famous of the Mauryan kings, Ashoka, used his navy to send his officers on missions of peace to countries like Greece, Syria, Egypt and Macedonia.

Looking East

In peninsular India, the masters of the sea were the Cholas who ruled parts of South India until 900 years ago. The Chola kings had a mighty navy with which they captured Sri Lanka and even achieved victories in battles in places as far away as the islands of Java and Sumatra. Under them, Indian merchants began trading with south-east Asia and through that route, with China

The Maratha ruler Chhatrapathi Shivaji Bhonsle is thought of as the Father of the Indian Navy. The Marathas built a strong sea force based out of several forts along the western coast of India. Even after Shivaji's the Maratha navy remained powerful and its their commanders meted out crushing defeats to various European armies.



Shivaji knew it was important for him to keep control of the sea

Flanked by three kinds of blue — the Arabian Sea to the west, the Indian Ocean to the south and the Bay of Bengal to the east — It's not surprising that India has a rich maritime tradition. In this edition of the Special Report, we shall go back in time to see how ocean trade changed India's history. We will also look at modern day maritime treasures — India's abundant marine ecosystems and the flora and fauna that live within them. All aboard then — let the journey begin!

Modern picture

As India was conquered by the British, the naval power of its kings dwindled (died down). As Europeans also controlled trade, Indian merchants, who for long had built strong businesses by plying (traveling along) ancient sea faring routes, also lost their power.

Today, India is not considered one of the great sea faring nations of the world. Although there are many shipping companies in India these are not among the best and biggest in the world. India however has a strong navy and many ships in its national naval fleet. The job of the navy is to protect India's coastline and safeguard the seas around the country.

Undersea treasure

Although India's glory days on the high seas are long past, our country still has a wealth of treasure out there on the high seas. All of it is underwater. Puzzled? Well, we are speaking of India's rich marine bio-diversity. Our long coastline that has tidal mudflats, mangroves, estuaries (a place where the river meets the sea), lagoons, beaches, marshes, wetlands and coral reefs has given birth to great number of plants and animals.

Marine National Parks

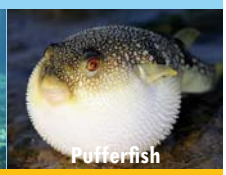
India has two major marine national parks – one at Jamnagar, in Gujarat and another in the Gulf of Mannar (which separates India from Sri Lanka).

Marine National Park, Jamnagar (Gujarat)

This park is one of the few places in India where one can view coral reefs without diving into water. At low tide, these reefs are clearly visible in 1-2 feet of water that one can wade into. The park, which lies in the Gulf of Kutch, has an array of marine life – pufferfish, octopus, sea sponges, sea horses, sea turtles, mollusks, rays, dolphins as well as many resident and migratory birds. If you are lucky you may even see a dugong or two! In the deeper areas of the sea off the coast, whale sharks are also to be found, though they would require quite an expedition.


Octopus


Ray


Pufferfish

Gulf of Mannar National Park (Tamil Nadu)

This marine park lies off the coast of Tamil Nadu and has 21 islands with estuaries, mudflats, beaches, forests along the shore as well as coral reefs, salt marshes and mangroves.

The park's most famous inhabitant is the dugong or the sea cow, which is a globally endangered species. The dugong is attracted by the large amounts of sea grass and sea weed that grow under water here. Other marine creatures like dolphins, sea-horses, sea-cucumbers and coral reef fish like the yellow butterfly and lionfish are common here. The sandy shores of islands are a good feeding ground for endangered marine turtles and the area is also home to migratory shore birds that arrive in the winter season from far-away areas such as the Arctic.


Dugong


Yellow Butterfly Fish


Turtle

New 'Hope spots'

The Andaman and Nicobar Islands and Lakshadweep islands have been declared as among the 50 Hope Spots of the world by the IUCN, an international organization that works to protect endangered plants and animals. They have named so due to the rich underwater habitats and wildlife found around these islands. These are the first places in India to be added to the IUCN Hope Spot list.

CHILD FRIENDLY NEWS
November 07, 2013
www.childfriendlynews.com

> The complexity of the simplest known type of cell is so great that it is impossible to accept that such an object could have been thrown together suddenly by some kind of freakish, vastly improbable, event. Such an occurrence would be indistinguishable from a miracle.
>
> —Michael Denton

IS THIS HOW LIFE BEGAN ON EARTH?

Ancient earth was bombarded by comets, meteorites and asteroids.

A fossil

A scientist of Indian origin, who now works in the United States (US) believes that he has found the answer to how life began on earth.

Sankar Chatterjee, the scientist we are speaking about, made his discovery after studying the world's oldest fossil sites in Greenland, Australia and South Africa. Fossils are remains of ancient plants and animals that have been preserved (kept safe) in rocks.

The earth was formed 3.8 billion years ago and at that time it was an inhospitable planet that could not support any life. It was a volatile (unsettled) planet that saw frequent eruption of volcanoes, and was often hit by meteorites, comets and asteroids. These strikes by objects from outer space eventually led to the creation of life on earth, according to Chatterjee.

He believes that the meteorites punched giant holes or craters into earth and deposited matter that helped in the formation of tiny creatures. Meanwhile icy comets landed in these craters and filled them with water. Other strikes and volcanic activity created vents (holes) in the earth surface that caused hot air to escape and warm up the craters or basins. Supplied with water, warmth and raw material brought by the meteorites, these craters became the perfect breeding ground for tiny organisms that over time became more and more complex, resulting in the development of an earth that today teams (is full of) with plants and animals of all kinds (including us!).

Diwali lights up India

First came the lights...

... and then the smog

Diwali celebrations lit up the sky across India last week end as the country celebrated the festival of Diwali. It was time for making and eating sweets, wearing new clothes and bursting fireworks.

Unfortunately, Diwali time is also 'pollution time' with smoke from fire crackers being released into the air. The pollution data for Diwali day was mostly bad news as the noise pollution levels were very high in cities like Delhi. Also, air pollution levels were worse than last year. The cooler weather in North India also created smog (a mixture of smoke and fog) conditions in Delhi the day after Diwali.

Rare solar eclipse

A flight takes off as the moon slowly begins to 'eat away' at the sun.

A rare solar eclipse that was a hybrid or mix of two kinds of eclipses took place on Sunday. During a solar eclipse the moon totally or partially blocks out the sun.

This eclipse was a mix of a total solar eclipse and an annular solar eclipse. A total solar eclipse occurs when the moon comes between the sun and the earth and totally blocks the sun, leaving the earth in darkness. An annular solar eclipse occurs when the moon is far away from the earth and so it does not totally block out the sun. Instead, a rim of light is visible around the moon.

Sunday's eclipse was visible in the southern United States as well as in Africa. One of the best views of the total solar eclipse was seen in northern Kenya and many tourism companies organized visits to view the total black-out.

INDIA BEAT AUSTRALIA, STAY ON AS NO 1

India defeated Australia in thrilling fashion in the last game of the seven match One Day International (ODI) series to claim the trophy. The win also means that India will stay on as the No 1 ODI team in the world. Australia is at No 2.

The win was made possible due to Rohit Sharma's unbeaten 209, which took India to an extremely high total of 383. Australia replied gamely, in spite of early loss of key wickets. The star of the Australian innings was James Faulkner who smashed a 57 ball century to almost win the match and the series for Australia. The outstanding aspect of his performance was that it happened when Australia were 8 wickets down, a time when most India and Australia piled up an astonishing pile of runs. effort went in vain and the last two wickets fell quickly to grant India match and series.

It's raining runs!

If you've been following the series, you would have noticed that teams are now scoring many more runs than they did before. Both teams scored above 300 runs an innings several times. Over six matches, both teams together scored 3596 runs, an astonishing average of almost 600 runs per match.

The runs are flowing thanks to new rules set by the International Cricket Council or ICC, the governing body that runs world cricket. According to the new rules, bowlers get a new ball from each end of the pitch. A new ball is easier to hit for the batsman while the reverse swing with the old ball that helps the bowler is avoided. The second rule that is helping run-making is that teams have to keep five fielders within the 30 yard circle. This means that the boundary can only be manned by four fielders. This is making the scoring of boundaries easier.

Virat at No 1

Thanks to his batting performance in the series, Virat Kohli is now the No 1 ODI batsman in the world.

Rohit on top

Rohit Sharma was named 'Man of the Match' and 'Player of the Series' for his efforts.

It's also raining records

Several records were broken during the 7th ODI

- Rohit Sharma became only the third batsman in the world to score a double 100 in an ODI after Tendulkar and Sehwag
- 38 sixes were smashed during the match – the most by an any team in an ODI
- With a century in 57 balls, James Faulkner hit the fastest century by an Australian
- With 386 for 6, India posted its highest total against Australia in an ODI

The challenger arrives

Magnus Carlsen has arrived in Chennai for the FIDE World Chess Championship that begins in the city on November 9. The Norwegian player appeared a little amused at the kind of reception he received at the airport, as chess players seldom get so much attention.

As per the format of the FIDE Championship, a challenger is chosen out of the world's best players to take on the defending champion. To become the challenger, Carlsen had to win the Candidates Tournament which was held in London in April 2013.

The defending champion is India's Vishwanathan Anand who has been World Champion since 2007. With the match being played in Anand's home town, Chennai, he would certainly have an advantage. However, with Carlsen being hailed (called) as chess' newest genius, Anand will have a tough battle on his hands.

OWLIE'S FUN PAGE

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ARE YOU AT SEA?

There are many different kinds of ships and boats that sail the seas and rivers of the world. Can you identify the type of craft from the picture?

Answers
1. Houseboat 2. Kayak 3. Raft 4. Cruise Ship

UNSCRAMBLE THE WORDS

Re-arrange the alphabets to find the word

Clue: All clues are linked to seas and sailing

1. RCANHO
2. WPOR
3. AOR
4. AOGCR

Answers
1. Anchor
2. Prow
3. Oar
4. Cargo

SUDOKU TIME

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

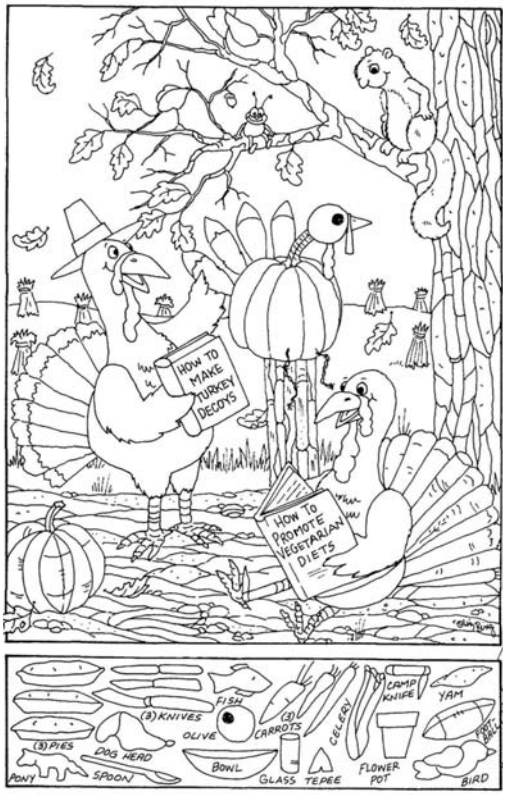
Try your hand at this Sudoku. Remember that numbers 1 to 6 can appear only once in each of the six rectangles. They can also appear only once in each row and column of the overall square.

Answer

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

FIND THE HIDDEN OBJECTS

Can you spot the hidden objects listed at the bottom of the picture?



Top Reads for Kids and Young Adults

1. Heroes of the Olympus: The House of Hades by Rick Riordan
2. Allegiant by Veronica Roth
3. Get Into Gear, Stilton! By Geronimo Stilton
4. The 39 Clues: Cahills vs. Vespers – Trust No One by Linda Sue Park
5. Sita's Ramayana by Samhita Arni & Moyna Chitrakar
6. Dork Diaries: OMG! All About Me by Rachel Renee Russell
7. Let It Snow by John Green / Maureen Johnson / Lauren Myracle
8. Time Riders – The Mayan Prophecy by Alex Scarrow
9. Revealed: A House of Night Novel by PC & Kristin Cast
10. My Sister the Vampire: Flipping Out by Sienna Mercer

To know more about these books and to buy them, check out **www.toptenbooksoftheweek.com**

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