Individually,we are one drop. Together, we are an ocean.

ACVISTA







funactivities



comicstrip



jokes & riddles



funfacts

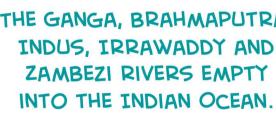


currentaffairs

ALL THE OCEANS ARE INTERCONNECTED TO MAKE ONE HUGE WATER ENVIRONMENT CALLED THE 'HYDROSPHERE'. THE OCEANS ARE RESPONSIBLE FOR HALF THE OXYGEN PRODUCED IN THE ATMOSPHERE AND ARE ALSO HELPFUL IN REGULATING THE TEMPERATURE OF THE EARTH.



THE INDIAN OCEAN IS THE YOUNGEST AND THE WARMEST OCEAN AND IS LOCATED IN THE TROPICAL AREA.



THE GANGA, BRAHMAPUTRA, INDUS, IRRAWADDY AND ZAMBEZI RIVERS EMPTY

OCEAN.

THE INDIAN OCEAN CONNECTS FOUR CONTINENTS ASIA, AFRICA, AUSTRALIA AND ANTARCTICA.

THE ARABIAN SEA, BAY OF BENGAL,

LAKSHADWEEP SEA, ANDAMAN SEA

AND THE SOMALI SEA ARE

PART OF THE INDIAN

SRI LANKA, BALI, JAVA, SUMATRA, MAURITIUS, MALDIVES, MADAGASCAR, SEYCHELLES, REUNION ISLANDS AND COMOROS ISLANDS ARE THE ISLANDS IN THIS OCEAN.

THE DEEPEST PORTION OF THE INDIAN OCEAN IS THE SUNDA DEEP OF THE JAVA TRENCH.





THE INDIAN OCEAN HAS THE WORLD'S HIGHEST RESERVE OF NATURAL OILS AND GASES.



IT TOUCHES THE COASTLINES OF INDONESIA, BANGLADESH, INDIA, PAKISTAN, IRAN, SAUDI ARABIA AND EAST AFRICAN COUNTRIES.

THE ISLAND NATIONS

Sri Lanka, Mauritius, Maldives, Madagascar, Seychelles and the Comoros islands call the Indian Ocean home. Let's hear from some of them.



AAYUBOWAN! WE ARE FROM SRI LANKA. I AM GAYAN FROM COLOMBO AND THIS IS HASINI FROM KANDY. WE ARE BUDDHISTS. MY FATHER SAYS THAT BUDDHISM CAME FROM INDIA WITH PRINCE MAHENDRA, THE SON OF ASHOKA. MANY INDIAN ORIGIN TAMILS SETTLED HERE ALONGSIDE THE LOCAL SINHALESE AND TRIBAL VEDDAS. THE INDIAN OCEAN HAS HELPED US TRADE IN SPICES, TEA, PEARLS AND PRECIOUS STONES. YOU MUST COME TO OUR BEAUTIFUL ISLAND COUNTRY TO CELEBRATE OUR FESTIVAL OF THE TOOTH.





SALAMA! I AM ADRIAN FROM ANTANANARIVO, CAPITAL OF MADAGASCAR. MEET LIMA, MY LEMUR PET. SHE IS UNIQUE TO MY ISLAND. WE HAVE THE MOST UNUSUAL PLANT LIFE WHICH CAN BE SEEN IN OUR NATIONAL PARK, MASOALA. THANKS TO THE INDIAN OCEAN, WE HAVE A SEMI TROPICAL CLIMATE WHICH ALLOWS US TO PLANT VANILLA, COCOA, COFFEE AND SUGARCANE.

ASSALAM ALAIKUM! I AM ABIDA. WE ARE FROM THE BEAUTIFUL PARADISE OF MALDIVES BORN OUT OF ANCIENT EXTINCT VOLCANOES. IF YOU WANT TO SEE PRISTINE WHITE CORAL BEACHES SURROUNDED BY THE BLUE WATERS OF THE INDIAN OCEAN, PLEASE DO COME TO OUR HOME AND SOON AS WE ARE SINKING INTO THE SEA DUE TO GLOBAL WARMING. PLEASE REVERSE CLIMATE CHANGES TO HELP US. THANK YOU.



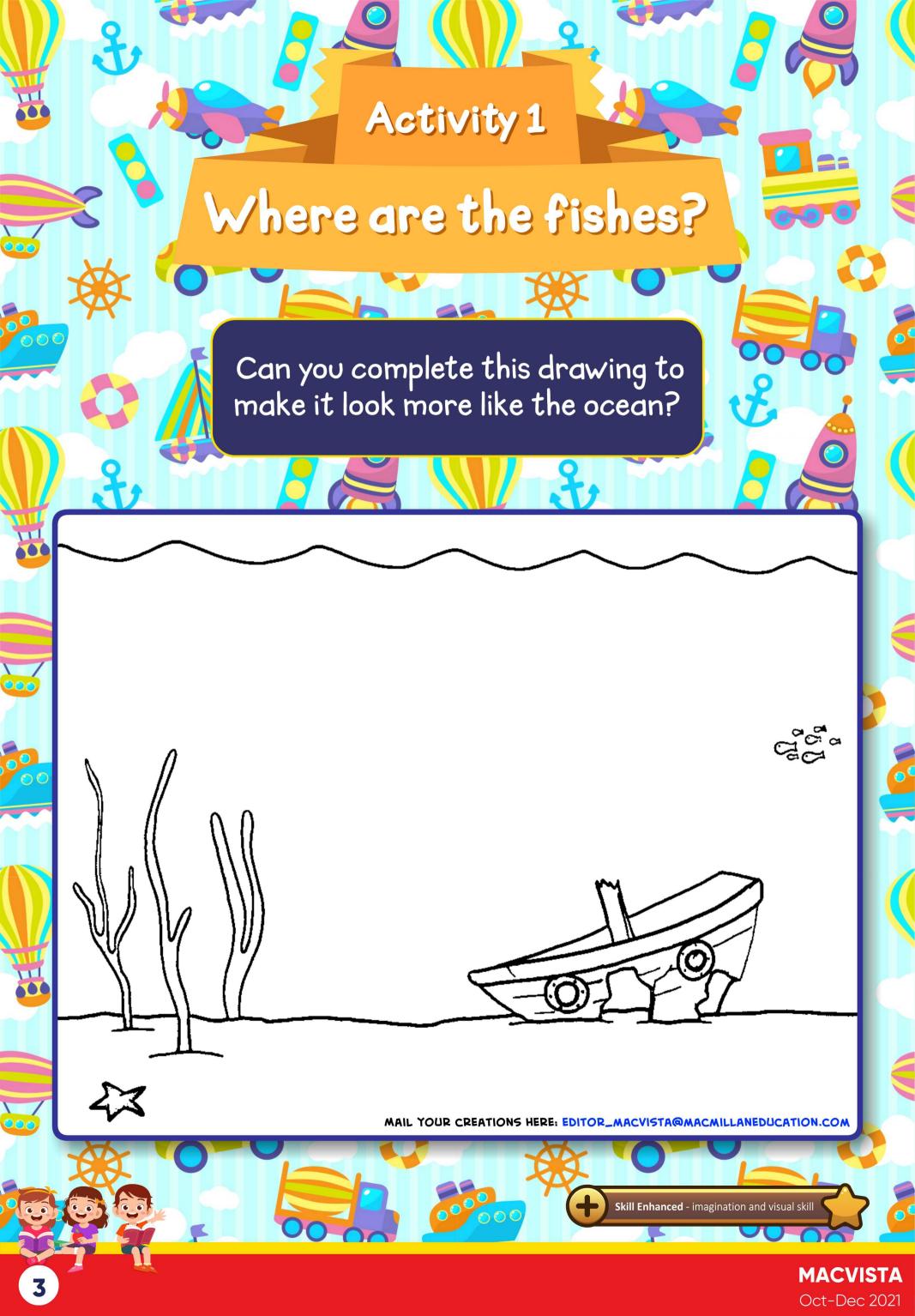
Sri Lanka- Aayubowan [hello]

Madagascar-Salama [hello]

Maldives- Assalam Alaikum [hello]

Seychelles- Allo, Komman sava [Hello, how are you]

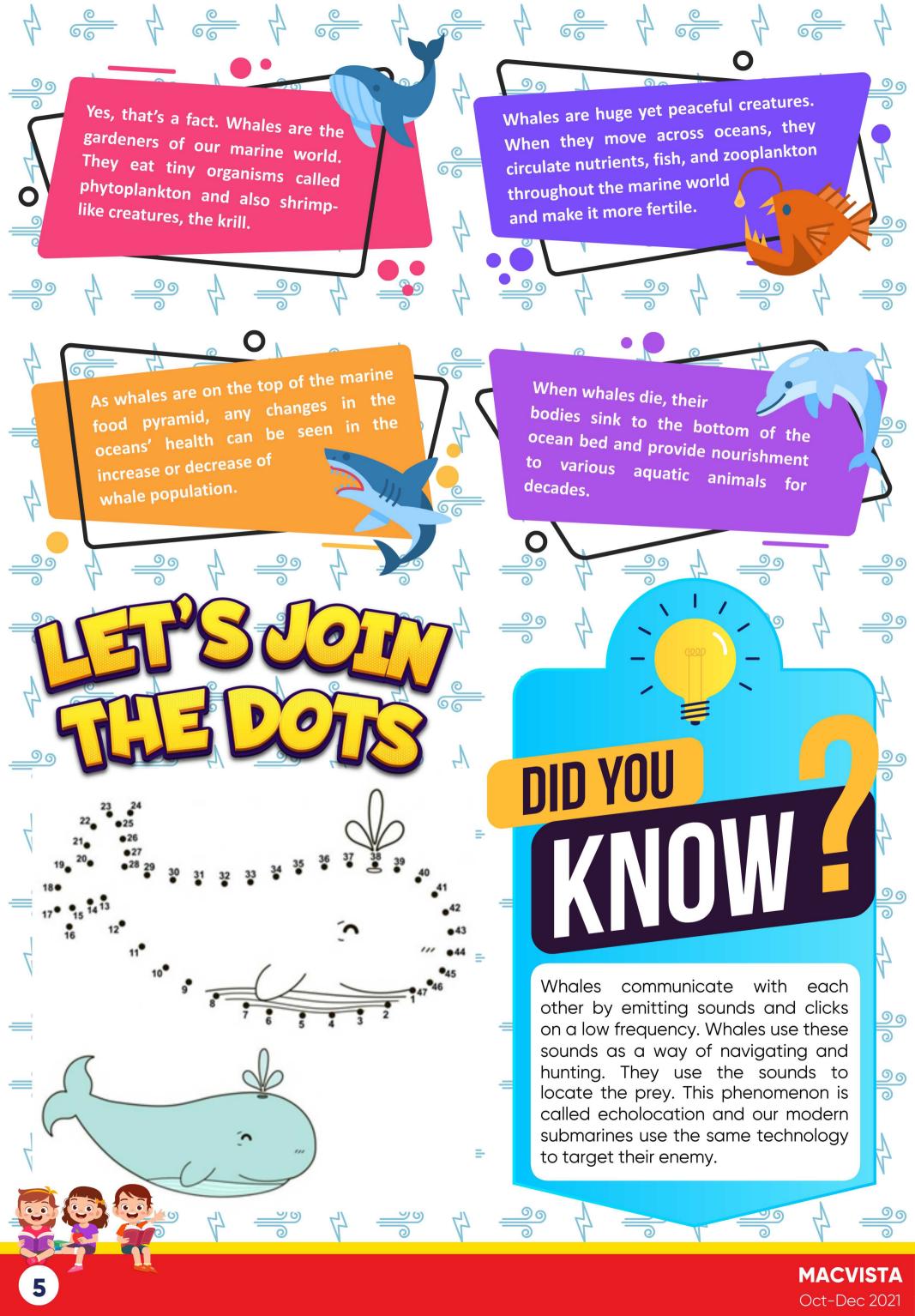
Comoros islands- Marhaba menji [thank you very much]







Aarif was helping his father in the boat. They had set sail from their village in Lakshadweep and had been fishing the entire night in the Indian Ocean. Aarif loved on to see the Sun come up from the ocean. "Aarif, get the nets straight. Let's check them. We must have enough fish to sell and also for the village", said Ahmad, his father. Aarif got down into the waters to straighten the nets and then he heard a sound, which he had never heard before. It was a low moaning sound coming from the deep. He looked around and a little way off the boat, he saw a spume of water blowing upwards. It was followed by a large fin crashing on the waves. There were two more blowouts that Aarif saw just behind the boat. "Abba, there are whales here!! See, you can see three together." said Aarif excitedly. His father looked up and said, "I haven't ever seen them so close to the surface. I have heard them sometimes when I am in the central sea near the Palk Strait. They are gentle creatures and a blessed sight. My ocean is healthy if the whales are here." He looked towards his son and said, "When whales are seen in the ocean, it tells the fishermen that underwater life is thriving and well. We have never thanked these gentle giants for all that they do for us but if the whales disappeared, then the world will not have enough air to breathe nor enough food to eat."







Comic Strip



BAIRA AND BELA



Tsunami comes from Japanese word which means "harbor wave."
Do you know how it occurs?

I am not sure but isn't it due to undersea earthquakes.

Yes. The ocean floor has mountains, valleys and trenches. Look, here is a diagram showing the ocean floor.

The land is not continuous. How does earthquake occur?

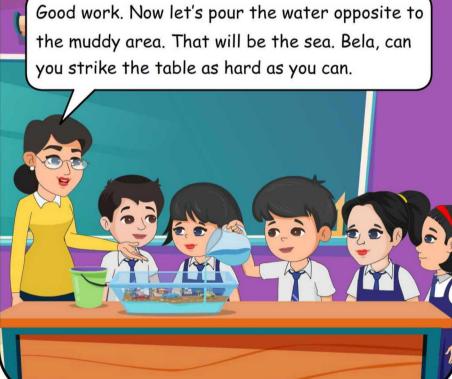


















How to create your own aquarium?

What you need

- · Glass jar with a tight fitting lid or any pretty glass jar
- · Iron nail or skewer to make air holes in the lid
- Water [tap water will help too]
- Small stones and gravel
- Small fish
- Plants

• Decorative accessories



How to start?

- Take a glass jar with a close fitting lid. Clean it properly and dry it.
- With the help of an adult, heat the iron nail and poke a few holes in the plastic lid to act as air holes.
- Fill the glass jar with a layer of gravel or stones. These stones will provide area for bacteria to grow.
- Add plants to provide oxygen for the fishes.
- Fill the jar with tap water. Keep it uncovered for an hour or two to let the chlorine evaporate, then the water will be fine for the fishes
- Add small fishes like gold fish, minnow or guppy. You can add small snails too. They keep the water clear. That's it! Your mini aquarium is ready.



Skill Enhanced - empathy, caring, learning responsibility





Siddharth Chakravarty is a Marine Conservationist who is working to conserve India's marine life. He started his career in the merchant navy but quit in 2011 to work with Sea Shepherd Global, an international non- profit marine conservation organization. According to him, the shipping industry is guilty of polluting the oceans. With Sea Shepherd, Siddharth was involved in campaigns to defend whales in the Pacific Ocean, Antarctica, Mediterranean Sea and the Indian Ocean. After Sea Shepherd, Siddharth along with Abhishek Jamalabad, a marine biologist, and Pradip Patade, a marine expert started a movement called Marine Life of Mumbai (MLOM)in 2017. The organization is dedicated to care for and increase awareness among people about the marine life in and around the city. They conduct walks along the coastlines of Mumbai to raise awareness about aquatic animals. They have also created an open public Facebook page to document marine life with photographs and videos. Siddharth Chakravarty says that the main idea behind the MLOM is a partnership with the ocean to live responsibly.

https://www.facebook.com/MarineLifeOfMumbai/



organisations working for marine conservation in india





Terra Conscious – founded by Puja Mitra. It works towards protecting dolphins around Goa and creating sustainable tourism.

Society for Marine Conservation—is based in Cochin, Kerala. It works towards ethical fishing practices and preventing over fishing.





Coastal impact— is based in Goa. It works towards marine conservation, education and research.

wildlife Trust of India— is the oldest conservation organization. It is based in Delhi and conducts many conservation projects with other organizations. The coral reef recovery project was a joint venture with Gujarat Forest Dept. to conserve coral reef in the Gulf of Kutch.



WORLD KINDNESS DAY

Carry out a random act of kindness, with no expectation of reward, safe in the knowledge that one day someone might do the same for you.

- Princess Diana

WORLD 13 Nov KINDNESS DAY

Simple acts of kindness can create a better world. The world comes together to celebrate kindness and compassion each year on 13th November.

Some simple ways to spread good cheer, kindness and compassion around you-

- Ask your friends and family members how was their day.
- Call up a friend you haven't spoken to for ages
- •Give food to the stray dog
- •Smile at your security guard
- Say thank you politely to the person delivering your package
- Compliment someone
- Help your mates with homework
 So, why don't you tell us what you did this kindness day? Write in to us at editor_macvista@macmillaneducation.com





Amya, the daughter of the spice merchant Vishwapati Nair, was playing near the dockyard. She saw sacks of spices waiting to be transported to the ship for Arabia. There was no one around, so Amya quietly crept to the sacks and started playing with the name tags. Now, look at what she has done. She has mixed up all the name tags. Can you help her unjumble the tags? The first one is done to help you.

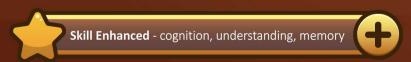
COLUMN A

rpepep
slovec
niamconn
mdarcaom
genirg
tdrmaina - - genutm
yrucr lvaees
muokk
alilanv

COLUMN B

Tamarind
 Nutmeg
 Vanilla
 Curry leaves
 Kokum
 Pepper
 Cloves
 Cardamom
 Ginger
 Cinnamon

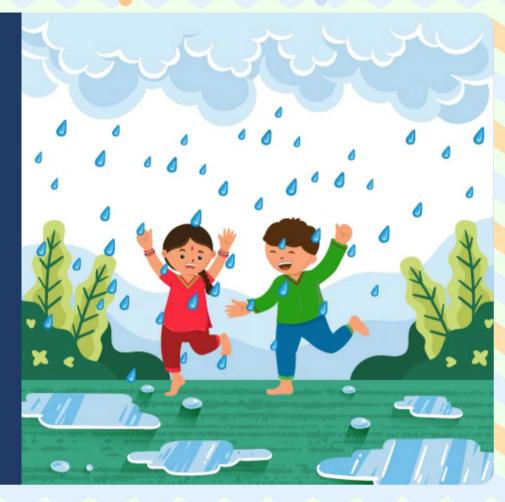
*Answers are on the last page.





THE MONSOONS ARE HERE

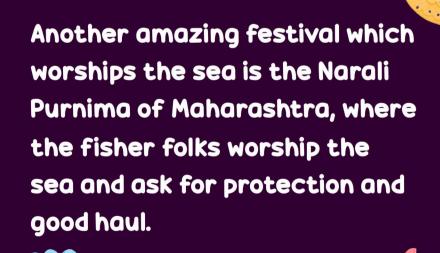
Phulwa is worried. Her father has been coming home later than ever. The summer is at its peak. There is not a shade to be seen anywhere. The teacher at her school was saying that the monsoon is late this year. If it doesn't come soon, then Phulwa's father will not be able to plant new crops and the family will not have enough to sell or eat. Suddenly, Balu comes rushing home, "Phulwa, Phulwa, the clouds are here. Come out. See, the clouds have come. Monsoon has come. Our fields will be happy now."

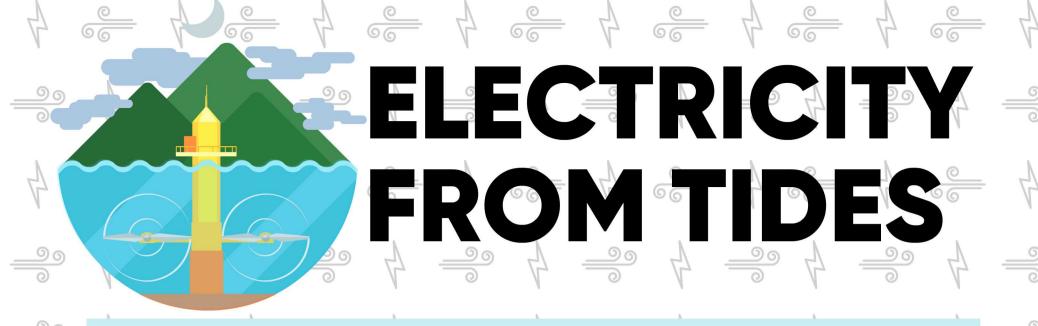


Monsoons are a time of great joy to the Indian farmers. They wait with impatience for the hot summer months to end and the rains to revive their fields. Monsoons are caused by the difference in temperature over land and sea. During summers, the land gets more heated than the seas and the hot air rises upwards leaving a vacuum. The colder air from the sea rushes in to fill that place. The winds from the sea carry a lot of moisture which comes down as rainfall. Monsoons strike India by July and reach Kerala first. The monsoon gets divided into two branches; the Arabian Sea and Bay of Bengal branch. The Bay of Bengal branch advances towards the north-east before entering the northern areas. This branch drenches most of India. For the farmers, it is a time of reaping the harvest and for the city dwellers, it is a time of relief from heat. Monsoon has been much celebrated in Indian literature, music, paintings and even films.



In Kerala, monsoon brings the festival of Onam. The green verdant landscape of Kerala pays homage to King Mahabali and welcomes him with floral decorations [Poo kalam] and snake boat races.





WHAT IT MEANS

Tidal energy is a renewable energy produced by the ocean and its tides. It is powered by the natural rise and fall of ocean tides and currents. Tidal energy is still in its infancy as the amount of power produced is quite small. The technology uses tidal turbines, barrage and fences to generate power.

HOW IT WORKS

Tidal energy is basically the energy produced by the tides of the sea. The energy of the huge mass of water remains the same from the beginning of the tidal surge till the time it breaks on the coast. The tidal turbines move with the tides and transfer this kinetic energy through generators to create electrical energy.

REASONS FOR ITS LOW USAGE

Harnessing tidal energy requires specific guidelines. The turbines and other mechanisms need a gentle coastline or a shallow bay area. The blades of the turbines have to remain underwater at all times to produce energy. Conservationists feel that these turbines can be harmful to the fragile marine eco-system. The cost of erecting and maintaining such turbines are quite high and producers feel that usage of this kind of electricity is still at a low so it would be a less profitable business.

FUTURE TECHNOLOGIES

Scientists and engineers are working towards creating a much cleaner way to generate electricity from our oceans. A floating barrage with the turbine attached under it is the latest technology. Such a design would eliminate the high cost of construction and can be used almost everywhere. Tides are well researched and understood so the energy produced is more predictable and steady than any other renewable source.

To understand more about the tidal energy, visit: https://www.youtube.com/watch?v=Nai-dcyogb8

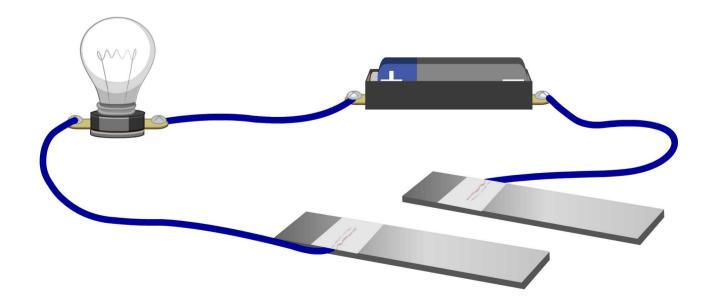
Let's do a little magic with salt. Salt is power and it can be used to generate electricity. You don't believe me. Well... let's try it out.

What you need

- 1. A cup, beaker or a small plastic tub. Pick any one thing.
- 2. Water
- 3. Table salt
- 4. Strong tape like a masking tape or an electrician's tape
- 5. Insulated copper wire
- 6. 9 volt battery
- 7. A light bulb in a socket
- 8. 2 Wooden popsicle sticks
- 9. Aluminum foil
- 10. Scissors or crafting knife

How to make?

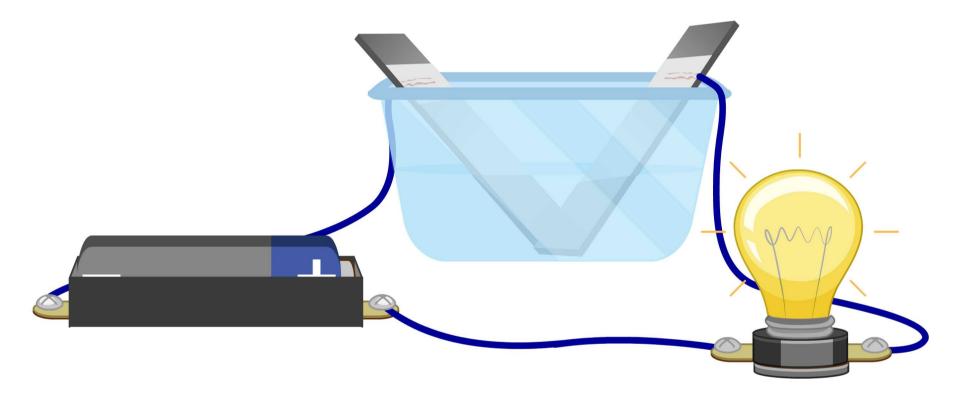
- 1. First wrap the popsicle sticks with aluminum foil. These sticks will act as electrodes.
- 2. With the help of an adult, carefully cut off three 6 inch piece of the copper wire. Strip off half an inch of insulation from the wire at both ends.
- 3. Connect one end of the wire to the positive terminal of the battery and the other end to the bulb. Secure with tape.
- 4. Take the second wire and connect the light bulb with the end of one electrode. Secure with tape. Make sure that the naked wire is touching the electrode.
- 5. Take the third piece of the wire and connect the negative terminal of the battery with the second electrode. This completes the circuit for electricity.



Skill Enhanced - understanding concepts, visualization and execution of instruction

DIY - SALT LIGHTS THE BULB

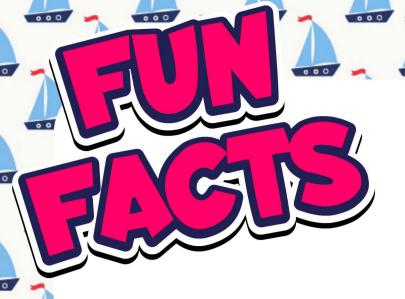
- 6. Test the circuit by touching both the electrodes together. The bulb should light up. If it doesn't, check the connections again.
- 7. Now take the beaker or the tub and pour the water in it.
- 8. Put in the electrodes with the wired part facing upwards and not in the water. Now observe. Does the bulb light up? Don't' be disappointed. We haven't added the magic ingredient yet.
- 9. Take out the electrodes from the water and put in a large amount of salt in the water. The idea is to make the water salty. Go ahead, be liberal with the salt.
- 10. Now put the electrodes back again in the salty water. Hey presto!! The bulb lights up.



How does that work?

Salt has sodium and chlorine molecules. When electricity surges through the water, it pulls apart the atoms of sodium and chlorine and forms sodium ion and chlorine ion. Ions are atoms which has only one electrical charge, positive or negative. The sodium ion doesn't have an electron so it has a positive charge and the chlorine ion has an extra electron giving it a negative charge.

As the circuit is complete, electric current moves in the water pushing the positively charged sodium ion towards the negative electrode and the negatively charged chlorine ion towards the positive electrode. This way, an invisible electric pathway is generated letting the electricity flow through the water to light up the bulb. Magic? No, it's science.



The Indian Ocean covers about 20% of the earth's surface.

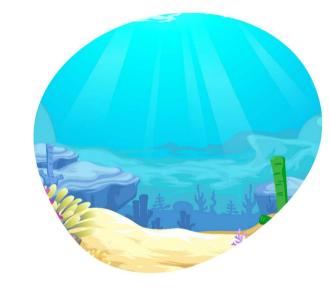




Due to the depth of the ocean, the lowest point is at 7,450 m deep-lying on the Java Trench of the Sunda Shelf while the highest point is the ocean surface.







A deep sea mountain range called the Ninety East Ridge divides the Indian ocean to eastern and western sides



Deep inside the ocean, three continental plates the African, Indo-Australian and Antarctic continental plates merge to form the Rodrigues Triple Point.





The Indian Ocean has the largest reserve of natural mineral oil deposits.





HKISLANDST OAZTRENCHE CSFDOLPHIN TOTTSTRAIT OCRIUASTKV PRSANRQEEL UAHALGTELL SBAWLIRLPL CURRENTAEE EUKTIDESY

STINGRAY OCTOPUS CORAL KELP
DOLPHIN VALLEY TRENCH CRAB
CURRENT TURTLE STRAIT EEL
ISLANDS SHARK TIDES

Answers on last page



What can make an laugh?

What can make should be considered as well and the can make should be considered as well as we



Why is a fish easy to weigh? Because it has its own scales!



What is the strongest creature in the sea? A Mussel



Imagine you are swimming in the ocean and a bunch of hungry sharks surround you. How do you get out alive?

Stop imagining

What does the sand say when the tide came in?
Long time no sea (see).

What did the ocean say to the other ocean? Nothing, they just waved.

It is a tiny house that you will find on the shore sometimes there is a treasure hidden inside it. What is it?

An oyster

Throw me off the highest building, and I'll not break. But put me in the ocean, and I will. What am I?

A wave



On a map

I am four letters long I can be seen in the sky I am the ocean & I am the sea Can you guess me?

The color Blue.



You are on a sail boat and you are in the middle of the ocean. The boat has four boards on the side that are 2 feet wide each, if the water level rises 4 feet, which board will the water reach?

It will be the same because the boat floats.

Oct-Dec 2021



I am born in the ocean and am white as snow. When I fall back into the water, I disappear. What am I?

Salt



There have been many writers, poets and playwrights who have immortalized the ocean in their work. Can you pen down a poem or a story based on the ocean and send it us editor_macvista@macmillaneducation.com?

To and fro, to and fro
In my little boat I go
Sailing far across the sea
All alone, just little me.
And the sea is big and strong
And the journey very long.
To and fro, to and fro
In my little boat I go.
-Excerpt from – A little boy's
dream by Katherine Mansfield.

The House of the H

38

December is the time of joy and good cheer. It is the time when Santa comes to town. Why not write a letter to Santa for Christmas? Wouldn't you love telling him all about yourself? Go ahead, pen a letter to dear Santa and send it to us. We will make sure your letters are delivered.

Merry Christmas.

CurrentAffairs

OCT-DEC 2021

INTERNATIONAL

President Bolsonaro of Brazil is to be tried for his handling of pandemic.



David Amess of UK's conservative party was fatally stabbed while meeting his constituents.

A new more infectious Covid variant was detected by the South African scientists.

Sandra Mason was elected president of Barbados, outing Queen Elizabeth as the head of the state



Japan's Princess Mako stepped down from the royal family after her marriage to her non-royal fiancée.

Former President FW Klerk of Apartheid ridden South Africa died.

Myanmar's Aung -San -Su -Kyi has been imprisoned for four years by the current military government.

Sweden's first female president Magdalena Andersson was elected for the second term.

China passed a 'historical resolution ' of promoting Premier Xi Jinping's status in history to equal that of Mao Zedong and Deng Xioping



Olaf Scholz sworn in as Chancellor of Germany. He succeeds Angela Merkel, the first women



NATIONAL

Director of AIIMS, Dr Randeep Guleria was honoured with the 22nd Lal Bahadur Shastri National Award for Excellence for his contribution to medicine and handling the pandemic.

Indian-Origin Anita Anand is the new Defence Minister of Canada

The controversial farmer laws were repealed by the Prime minister.

Takachar an Indian startup, lead by Vidyut Mohan has won the Prince William Earthshot Prize of 1 million pounds for its technology to convert the crop residues to bio-products

Amravati to be the only capital of Andhra Pradesh instead of three capitals as proposed earlier.

Indian origin Parag Aggarwal is the new chief of Twitter.

The first manned ocean mission, Samudrayaan to conduct undersea studies was launched in Chennai.

PM Modi launched a One Sun One World grid at the COP 26 Summit. It aims at worldwide interconnected solar grid to supply and generate clean energy.



CDS Bipin Rawat was

killed in an helicopter crash in Tamil Nadu

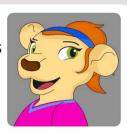


CurrentAffairs

OCT-DEC 2021

SPORTS

FIFA unveiled the official mascot of the U-17 Women's World Cup 2022 -'Ibha'- an Asiatic lioness aimed at women empowerment.



Anshu Malik has become the first woman wrestler from India to win a Silver medal in the World Wrestling Championships.

Indian shooters at ISSF Junior World Championship 2021 won 16 silvers, 17 gold, and 10 bronze medals

Para Olympic athletes like table tennis player Bhavina Patel, cricketer Shikhar Dhawan, para shuttler Suhas Sathitraj and High Jumper Nishad Kumar are among those who have been selected for Arjuna award.

Australia defeated New Zealand to snatch the T-20 world cup. Akash Kumar won bronze medal at the World Boxing Championships.

Rahul Dravid is appointed coach to the T-20 Indian Cricket team. Rohit Sharma captains India's T-20 team after Virat Kohli steps down.



Saurav Ganguly was appointed chairman of ICC after Anil Kumble. Indian Para
Badminton
contingent won a
total of 15 medals in
the Asia Youth Para
Games in Tokyo.

Major Dhyan Chand Khel Ratna Award was awarded to Indian athletes Neeraj Chopra, Lovlina Borgohain, Ravi Dahiya and Mithali Raj

ART AND OTHERS

Japanese-American Syukuro
Manabe, Italian Giorgio Parisi, and
German Klaus Hasselmann have been
jointly awarded the 2021 Nobel Prize
in Physics Joshua D. Angrist, David
Card, and Guido W. Imbens have
been jointly awarded the 2021 Prize in
Economics.

B Gopal, a renowned Telugu filmmaker, has been chosen for the fourth Satyajit Ray Award

Prof. Bimal Patel appointed to International Law Commission in UN.

Mannu Bhandari, the renowned Hindi writer and pioneer of the Nayi Kahani movement, died at the age of 90. Ahmadabad based lab discovered an exoplanet bigger than Jupiter and located 725 light years away.

Dada Saheb Phalke award was conferred on Rajnikant, the superstar of Indian cinema, for his outstanding contribution.



A team of
astronauts from
Pune have
discovered eight
stars which are
hotter than the Sun.

Jnanpith Award was awarded to Assamese Poet Nilmani Phookan Jr. and Konkani Novelist Damodar Mauzo.

Prominent journalist Vinod Dua passed away at the age of 67.

Miss India, Harnaaz Sandhu wins the Miss Universe pageant

ANSWERS

NORDS GRAMBLE

COLUMN A

rpepep
slovec
niamconn
mdarcaom
genirg
tdrmaina
genutm
yrucr lvaees
muokk

alilanv

COLUMN B

Tamarind
Nutmeg
Vanilla
Curry leaves
Kokum
Pepper
Cloves
Cardamom
Ginger
Cinnamon

WORD SEARCH

HKISLANDST
OAZTRENCHE
CSFDOLPHIN
TOTTSTRAIT
OCRIVASTKV
PRSANRQEEA
UAHALGTELL
SBAWLIRLPL
CURRENTAEE
EUKTIDESYY