

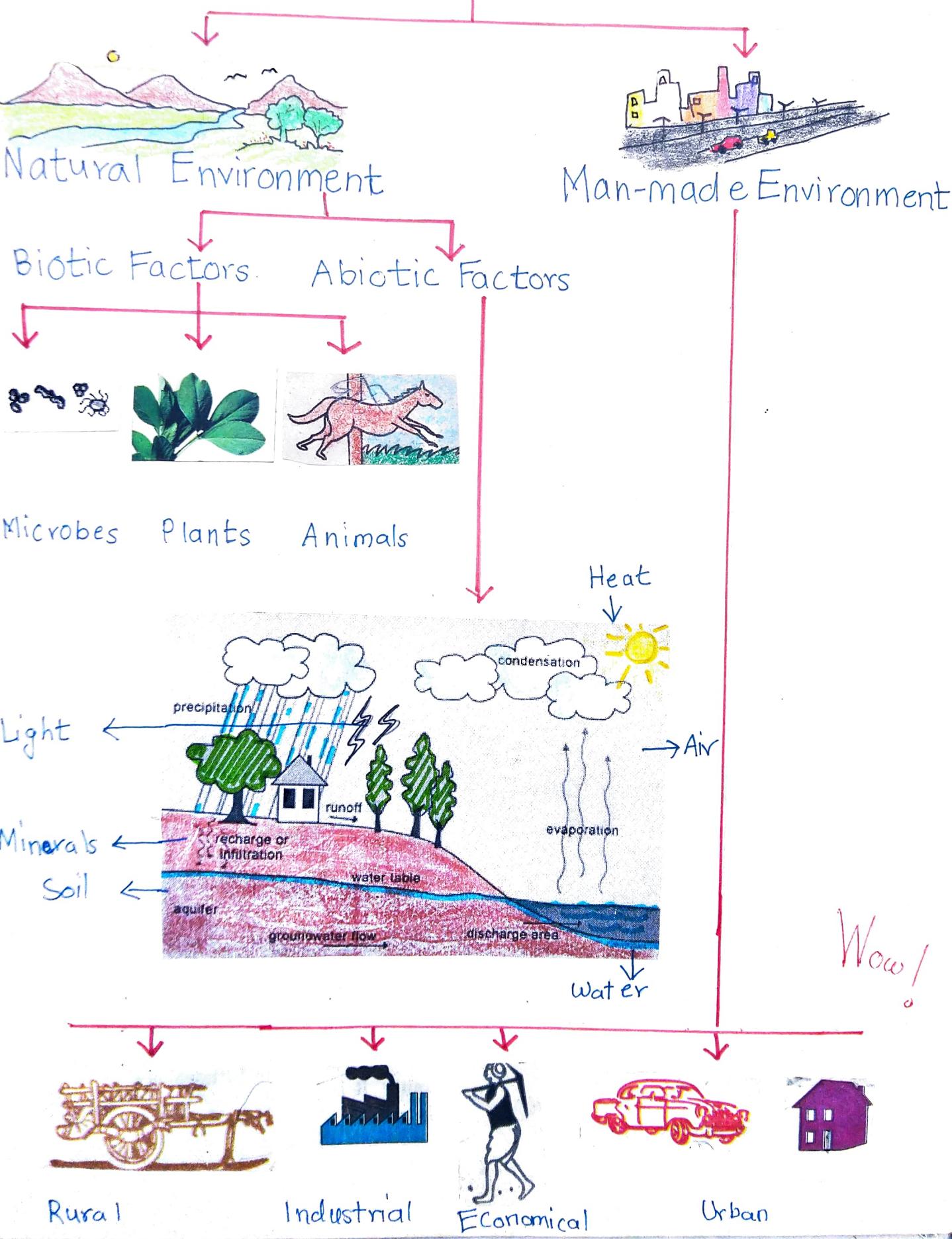


## ENVIRONMENTAL STUDIES



KSHITIJ M. CHITNIS  
STD V, MERCURY  
ROLL NO. 22.

# COMPONENTS OF ENVIRONMENT



# City firm to make fuel from plastic waste

Sarang Dastane | TNN

Pune: In a solution to the ever-worsening problem of plastic waste, city-based BVG India Ltd has developed a technological process for producing pure diesel and petrol from all types of plastic wastes. The company has completed basic prototype trials and aims at carrying out the remaining trials by the end of January.

It plans to set up a manufacturing and processing plant by the end of March and start production from April. The plant will have a capacity to process 25 tonnes of plastic waste per day to produce an average of 15,000 litres of fuel, depending on the quality of the plastic.

Ganesh Limaye, one of the directors of the company, said the plant will tackle the growing problem of plastic waste and that it was a first such initiative in the state. "The plant will produce 900 ml of fuel from one kg of plastic. All types of plastic will be processed in the plant. The company is investing Rs 20 crore for the plant in the initial stage," Limaye said. Plastic would be converted into fuel by random depolymerisation in a specially designed reactor, Limaye said. "An advanced reactor has been set up and the company has also developed a catalyst for this process. Depolymerisation will be carried out in absence of oxygen and in the presence of patented catalyst and additive. The conversion efficiency is about 70 per cent."

"Non bio-degradable plastic has become a major concern. City infrastructure like sanitation, water supply and rivers are being badly affected by plastic waste. Data shows that the gap between generation and recycling of plastic is 80 per cent and most of it ends up in landfill and incineration. This is because of the absence of any other suitable way of disposal," Limaye said.

The company has tied up with the Pimpri-Chinchwad Municipal Corporation for plastic waste. The derived fuel will be sold to the PCMC at a lower rate than the market rate of petrol and diesel, Limaye added.



Aamir Shaikh

converted into fuel by random depolymerisation in a specially designed reactor, Limaye said. "An advanced reactor has been set up and the company has also developed a catalyst for this process. Depolymerisation will be carried out in absence of oxygen and in the presence of patented catalyst and additive. The conversion efficiency is about 70 per cent."

"Non bio-degradable plastic has become a major concern. City infrastructure like sanitation, water supply and rivers are being badly affected by plastic waste. Data shows that the gap between generation and recycling of plastic is 80 per cent and most of it ends up in landfill and incineration. This is because of the absence of any other suitable way of disposal," Limaye said.

The company has tied up with the Pimpri-Chinchwad Municipal Corporation for plastic waste. The derived fuel will be sold to the PCMC at a lower rate than the market rate of petrol and diesel, Limaye added.

V.V. Good!

# The green edge

A new form of plastic that is bio-degradable is out in the market. PT tells you more

**W**Ish plastic was valued as much as gold and diamonds! If buried in your backyard, and if you launched a treasure hunt years later, you could amass a fortune as it would be found intact in its original form. It will remain there forever and ever and for thousands of years! Chairs, mugs, bottles, toys, dustbins, combs, soap cases and bags: Choose your pick! Immensely useful, undoubtedly but ever thought of the threat that they pose to the environment? Plastic, a by-product of petroleum, as we all know, is not degradable and hence it is a strict no-no with the conservationists.

Pune is now waking up to the hazard and doing all it can to become environment-friendly. Bio-degradable plastic is being manufactured by some ventures in and around the city that can be used in the form of plastic bags. This kind of plastic has also been passed as food grade plastic. Ramakrishna Shetty, owner of a restaurant on Singhad

Road, says, "Bio-degradable plastic bags are here in a big way. We throw away all our wet waste in these green coloured bags and they are then taken away by the municipality. That's the rule. The municipality will not take away the waste unless it is collected in bio-degradable plastic bags."

Ever spotted green colour bags kept outside restaurants? Restaurants collect their wet trash in these bags and keep it for the municipality to take it away. "There is a com-

as it is environment-friendly," says Amit Ambedkar, distributor for bio-degradable bags.

It is not just restaurants, five-star hotels, chains of coffee shops, fast food restaurants, hospitals, shopping malls, and other eateries are all using eco-friendly plastic stuff everywhere. Not only that, but, heavy engineering companies are also using this kind of plastic to store machines, auto spare parts and other machinery to save them from corrosion.

Many popular brands of pickle and other food items have now started using bio-degradable plastic bags to store their products. "People are showing increasing concern for the environment and hence the cost is not so important. I have noticed



IN VOGUE: Bio-degradable plastic is changing the lives of people

pounded substance that is added to the usual plastic that breaks the molecular chain and enables the plastic to become biodegradable. Though this plastic is marginally more expensive than the regular one, it is worth it

an increase in the awareness level. People from all kinds of industries that require plastic are approaching us," says Savita Mehta, who owns a bio-degradable plastic manufacturing unit in Hinjewadi.

We have often been witness to nature's ire whenever the ecological balance has been tipped. So let's not take it for granted. Let's switch to a form of plastic which is degradable and yet, continues to serve our purposes.

# GEOGRAPHY ACTIVITY - I

**30.6°C** **21.9°C**

Sunrise 0614 | Humidity 87%  
Sunset 1904 | Rainfall 1.1mm

Forecast: One or two spells of rain

12/08/10

**29.4°C** **23.4°C**

Sunrise 0617 | Humidity 91%  
Sunset 0659 | Rainfall Nil

Forecast: A few spells of rain likely

19/08/10

**28.9°C** **22.1°C**

Sunrise 0618 | Humidity 78%  
Sunset 1856 | Rainfall 0.3mm

Forecast: A few spells of rain likely

25/08/10

**27.9°C** **22.1°C**

Sunrise 0620 | Humidity 88%  
Sunset 1847 | Rainfall 0.7mm

Forecast: A few spells of rain

2/9/10

**27.8°C** **21.7°C**

Sunrise 0621 | Humidity 77%  
Sunset 1844 | Rainfall 1.1mm

Forecast: A few spells of rain

8/09/10

SUNDAYS DO NOT CARRY WEATHER FORECAST.  
15/08, 22/08, 29/08,  
5/09, 12/09

**29.5°C** **23.3°C**

Sunrise 0614 | Humidity 84%  
Sunset 1904 | Rainfall Nil

Forecast: One or two spells of rain

13/08/10

**27.4°C** **22.1°C**

Sunrise 0617 | Humidity 84%  
Sunset 1859 | Rainfall Nil

Forecast: A few spells of rain likely

20/08/10

**27.4°C** **22.6°C**

Sunrise 0619 | Humidity 79%  
Sunset 1855 | Rainfall Nil

Forecast: One or two spells of rain

26/08/10

**28.4°C** **21.8°C**

Sunrise 0620 | Humidity 87%  
Sunset 1847 | Rainfall NIL

Forecast: A few spells of rain likely

3/9/10

**28.1°C** **21.7°C**

Sunrise 0620 | Humidity 73%  
Sunset 1847 | Rainfall Nil

Forecast: A few spells of rain likely

**29.5°C** **22.8°C**

Sunrise 0616 | Humidity 77%  
Sunset 0704 | Rainfall 0.3mm

Forecast: Occasional rain would occur

14/08/10

**29.8°C** **22.5°C**

Sunrise 0616 | Humidity 84%  
Sunset 1901 | Rainfall Nil

Forecast: Few spells of rain likely

17/08/10

**29.9°C** **22.3°C**

Sunrise 0618 | Humidity 81%  
Sunset 1857 | Rainfall Nil

Forecast: A few spells of rain likely

23/08/10

**27.8°C** **23.1°C**

Sunrise 0619 | Humidity 97%  
Sunset 1851 | Rainfall 17.6mm

Forecast: Intermittent rain with some heavy spells

30/08/10

**28.0°C** **21.8°C**

Sunrise 0621 | Humidity 70%  
Sunset 1846 | Rainfall NIL

Forecast: One or two spells of rain

6/9/10

**28.4°C** **22.1°C**

Sunrise 0621 | Humidity 84%  
Sunset 0646 | Rainfall 2.3mm

Forecast: Occasional rain would

7/09/10

**27.8°C** **21.7°C**

Sunrise 0621 | Humidity 85%  
Sunset 1844 | Rainfall 6.8mm

Forecast: Occasional rain would occur

9/09/10

**27.1°C** **22.2°C**

Sunrise 0621 | Humidity 87%  
Sunset 1841 | Rainfall 4mm

Forecast: Occasional rain would occur

10/09/10

**29.7°C** **20.3°C**

Sunrise 0622 | Humidity 65%  
Sunset 1841 | Rainfall Nil

Forecast: One or two spells of rain

11/09/10

16<sup>th</sup>/08 HOLIDAY DUE TO 15<sup>th</sup> AUGUST.

28/08 & 1/09 DID NOT CARRY FORECAST DUE TO ADVERTISEMENTS.

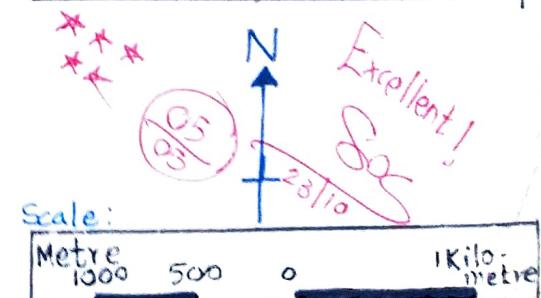
28/08/10  
SOS

95  
EXCELLENT!

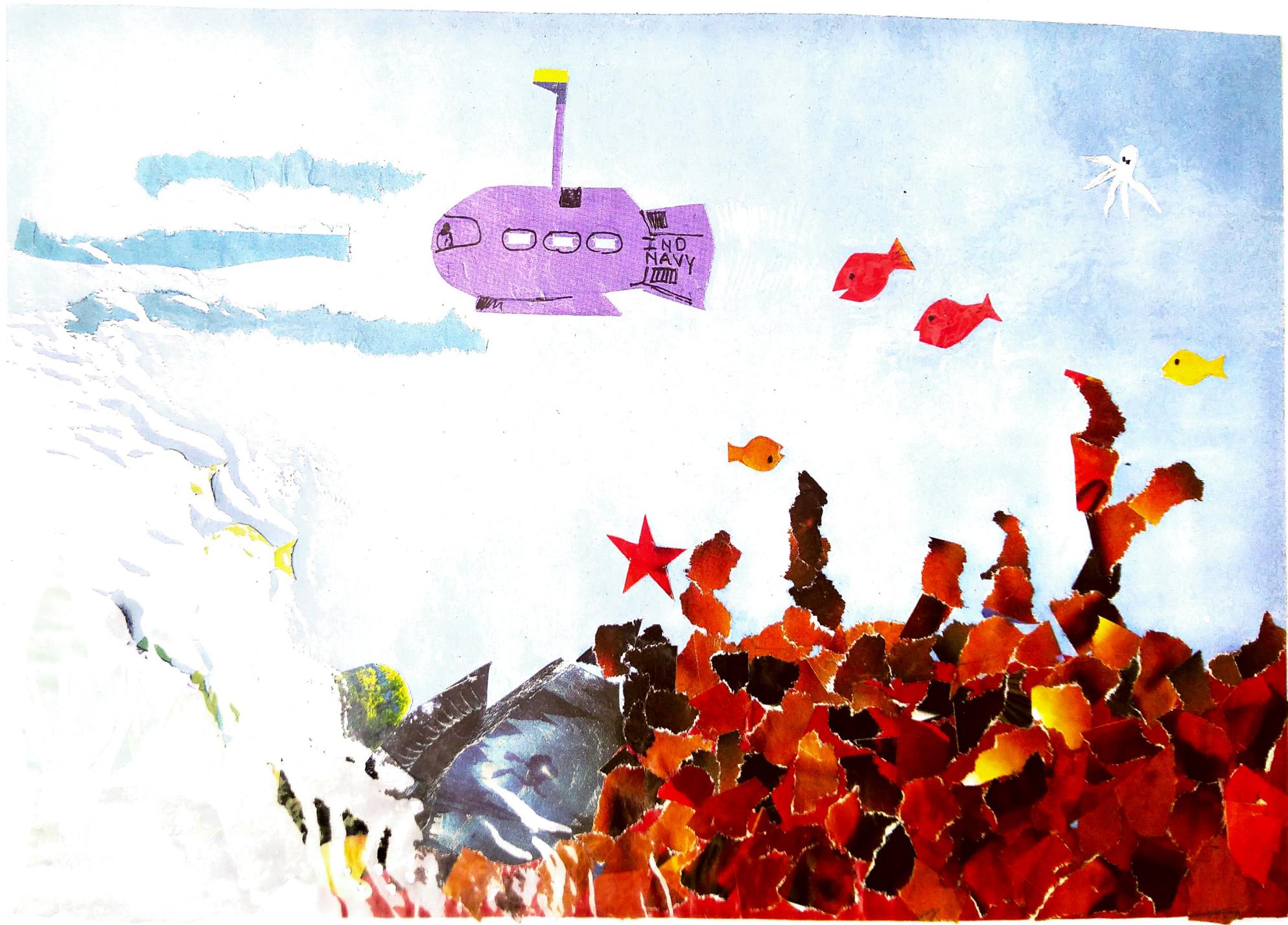
# GEOGRAPHY ACTIVITY-II

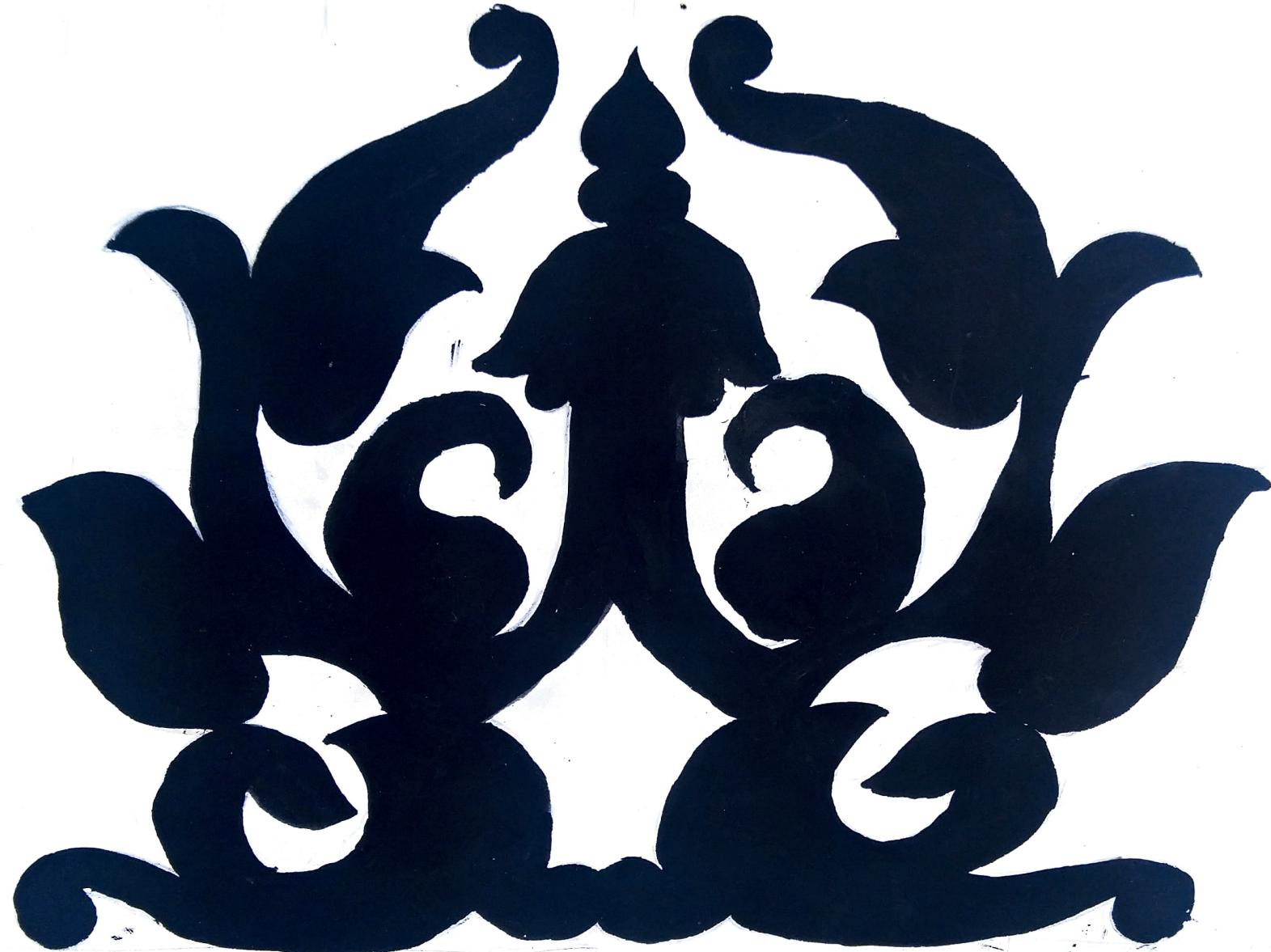
## INDEX

○	Well
△	Temple
❖	Fort
■	Town
—	Bridge
●	Other trees
~~~~~	River
	Forest Area
	Agricultural Area
—	Main Road
—	Kachcha Road
—	Railway



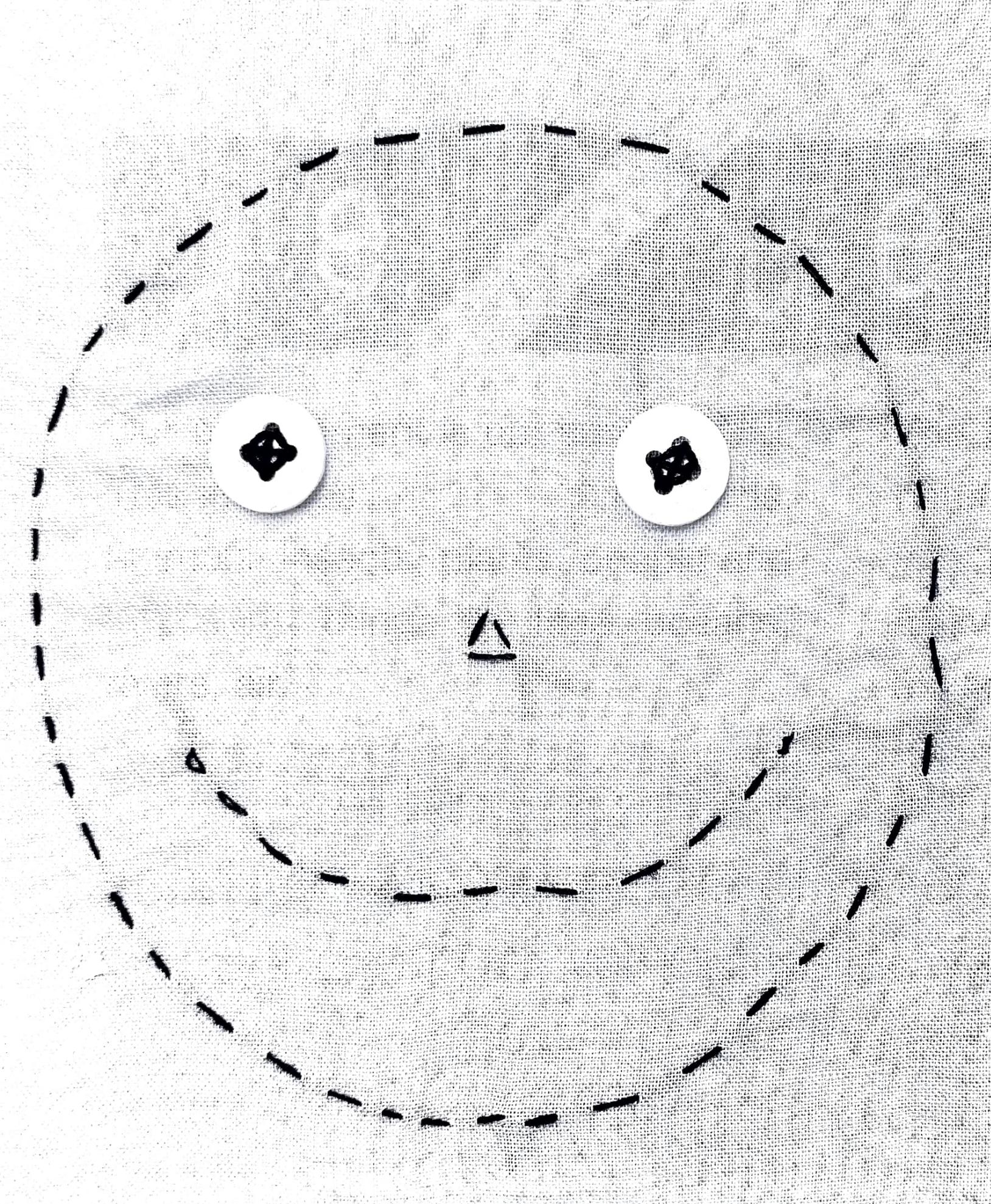
# MARINE WEALTH





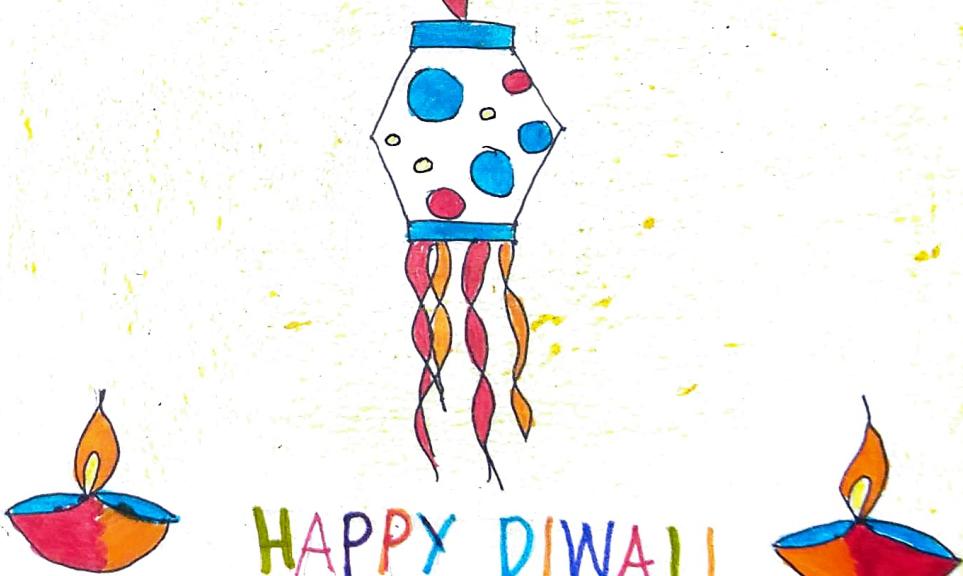




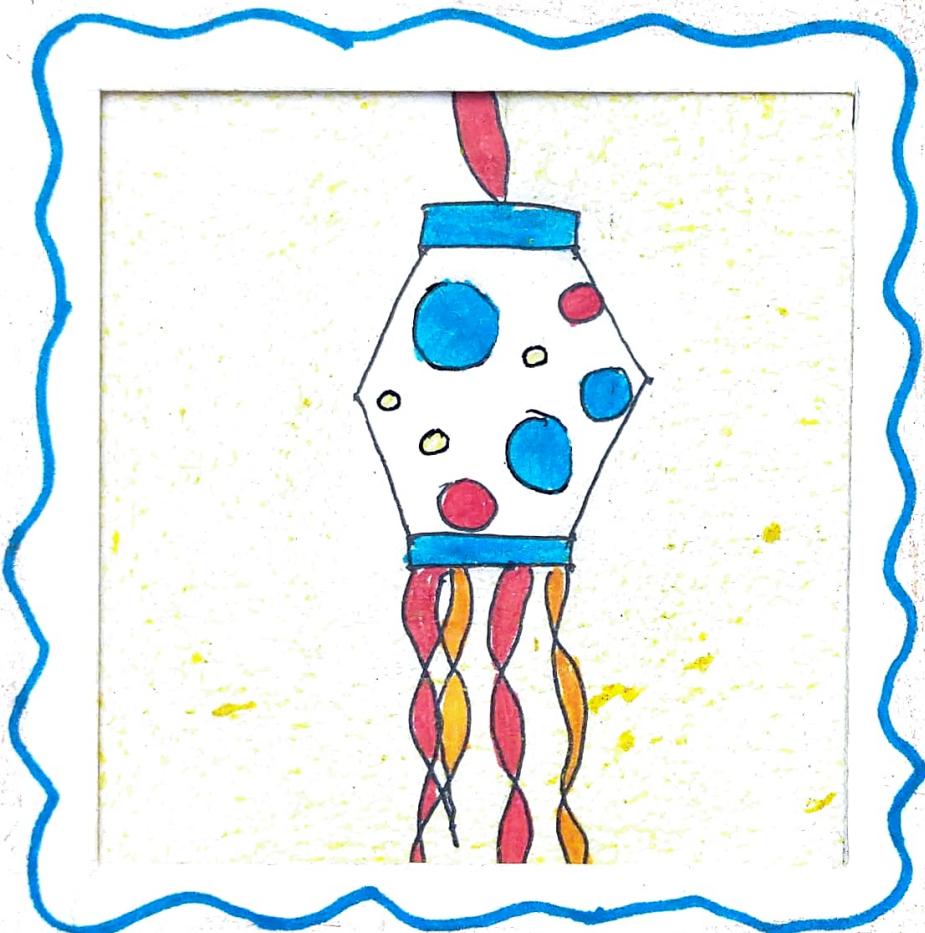


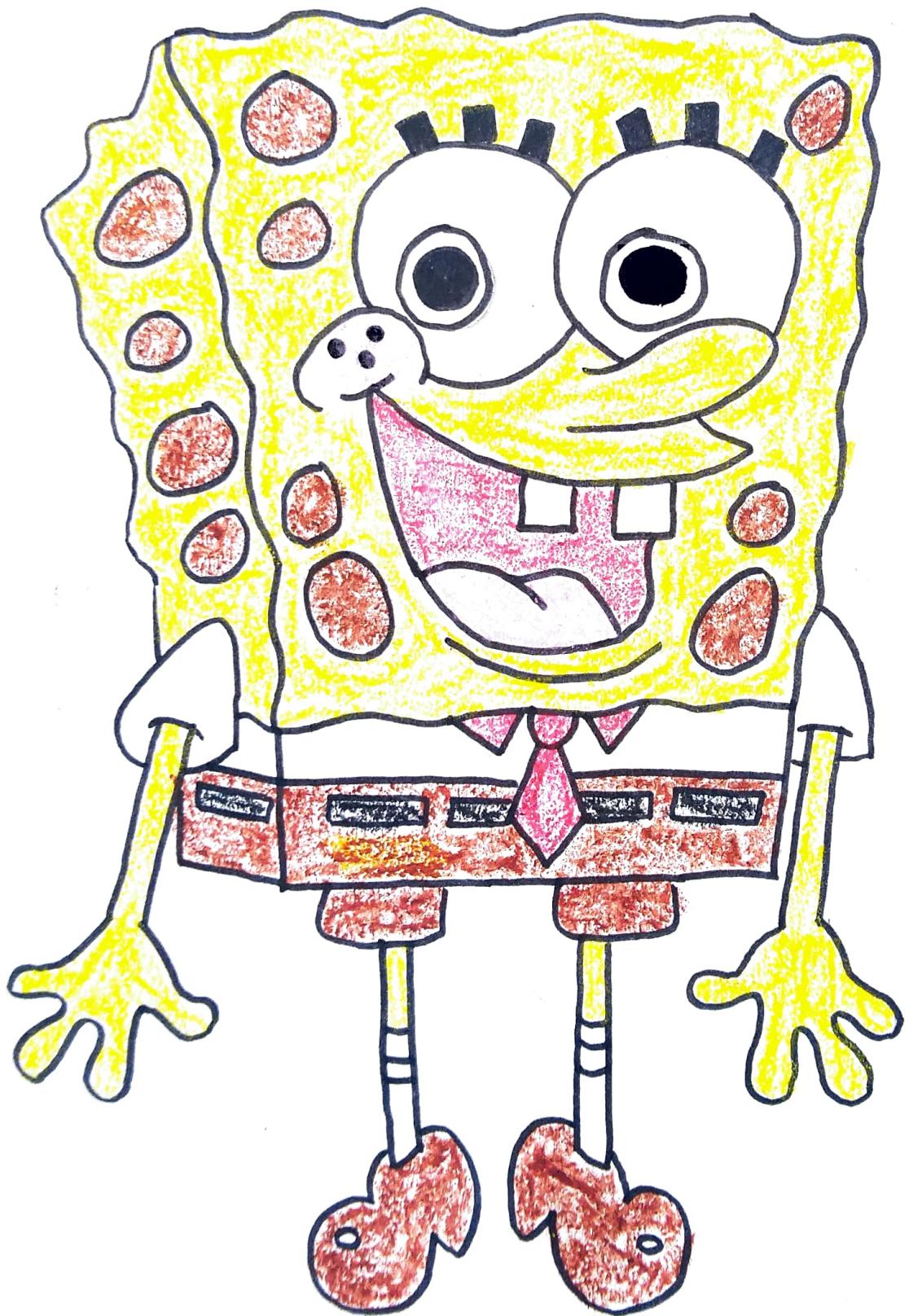


To,  
MEENA  
TEACHER



LOVE  
KSHITIJ C.









-R:

