

## 1

## The Fish Tale



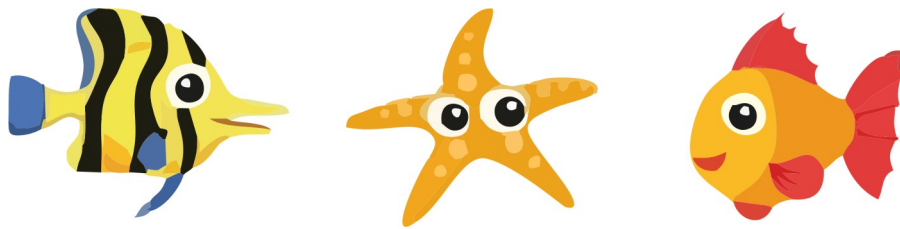
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## 1. Do you know any poem about fish?

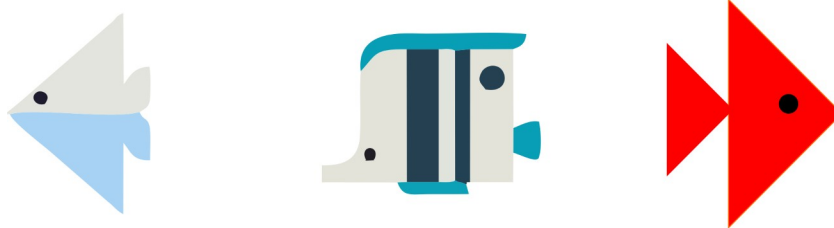
Swimming in the water,  
Gliding through the sea,  
Fish are such a wonder,  
To watch and to be free.

With their scales so shiny,  
And their fins so small,  
Fish are a delight to see,  
As they swim in schools, both small and tall.

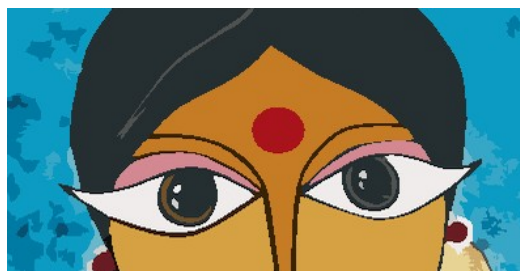
## 2. When you think of fishes what shapes come to your mind?



## 3. Try to use a square and a triangle to draw a fish.



4. 'Meen' means a fish and 'Meenakshi' is a girl whose eyes look like a fish. Can you think of someone who has such eyes? Draw a face with 'fish eyes'.



**5. How long is the biggest fish you can imagine?**

Ans. "White shark is as long as 18 metre. I can imagine a fish about 18 metre long.

**6. How many times longer is your big fish than the smallest fish?**

Ans. The smallest fish is about 1 centimetre long and the longest fish is about 18 metre long.

$$1 \text{ metre} = 100 \text{ centimetre}$$

$$18 \text{ metre} = 18 \times 100 \text{ centimetre} \\ = 1800 \text{ centimetre}$$

Hence, the longest fish is 1800 times longer than the smallest fish.

**7. About how many kilograms do you weigh?**

Ans. I weigh about 35 kg.

**8. If, 12 children like you put together will weigh about.....kg.**

Ans. Weight of 1 child = 35 kg

$$\text{So, weight of 12 children} = 12 \times 35 = 420 \text{ kg}$$

**9. About how much more does the whale shark weigh than 12 children like you put together?**

Ans. Weight of a Whale shark = 16,000 kg

Weight of 12 children = 420 kg

$$\text{Difference in weights} = 16,000 - 420 = 15,580 \text{ kg}$$

So, the Whale shark will weigh 15,580 kg more than 12 children like me put together.

## Fishermen in their Boats

**10. How many of you have seen the sea? Where did you see it? Did you see it in a movie or for real? How deep do you think the sea could be? Find out.**

Ans. I have seen the sea and many of my friends have also seen the sea. I have seen the sea at beach. I have also seen the sea in movies. The sea should be very huge and at least thousand feet deep.



**11. Do you know how to swim? Would you be scared of the high sea waves?**

Ans. Yes, I know how to swim. Yes, the high waves can be scary.

**12. Close your eyes and imagine the sea with waves rising high.**

Ans. High sea waves look really beautiful.

**13. How high do you think the waves can go?**

Ans. I think the sea waves can go as high as 50-60 metres.



## Log Boat Speed

These log boats do not go very far. If the wind is helpful, then travel about 4 km in one hour.

**14. How long will they take to go a distance of 10 km?**

Ans. In 1 hour the boat travels 4 km

In 2 hours the boat will travel  $2 \times 4 = 8$  km

And in  $1/2$  hour the boat will travel  $4/2 = 2$  km

So, in 2 and a half hour the boat will travel  $8 + 2 = 10$  km.

**15. Guess how far you can go in one hour if you walk fast.**

Ans. I think, I can travel 4 to 5 km if I walk fast.

## Find Out the Way

**16. Look at the sun and find out the direction from where it rises:**

(a) From where you are, what interesting things do you see to your east?

Ans. The sun rises in the east. I see the rising sun in the east. I see the orange red sky in the east during morning.

(b) Name two things that are lying to your west.

Ans. I see the setting sun in the west. The western sky looks orange red in the evening.

## Different types of boats

Some boats have motors and go further into the sea. Since they go far out they can catch more fish. These boats travel faster, at the speed of about 20 km in one hour.

**17. How far would the motor boats go in three and a half hours?**

Ans. In 1 hour the boat goes 20 km

Hence, in 3 hours the boat will go  $3 \times 20 = 60$  km

And in  $1/2$  hour the boat will go  $20/2 = 10$  km

So, in 3 and a half hour, the boat will go  $60 + 10 = 70$  km

**18. How much time will they take to go 85 km?**

Ans.  $85 = 4 \times 20 + 5$

This gives 5 as remainder  $= 5/20 = 1/4$

Hence, the total time taken to travel 85 km is 4 hours 15 minutes

**19. Write a news report about the dangers faced by the fishes in our rivers and seas.**

Ans. Dangers of trawlers Big machine boats or trawlers are posing big danger to the fish population and to small fishermen.

These trawlers go very far from the shore and spread their big net. These big nets catch a huge amount of fish. They also catch small baby fishes. Traditional fishermen use nets which allow baby fish to escape. Thus, traditional fishermen take care of fish population.

Big trawlers hamper the natural growth of fish population in the ocean. They are also a threat to the livelihood of traditional fishermen. These trawlers can result in fish stock getting finished in the ocean. This will also lead to huge unemployment for traditional fishermen.

## Which Boat Gets How Much?

Here the kids will learn the relation between Time, Speed and Distance.

Distance = Speed x Time, i.e  $D=S \times T$

In one trip the log boat brings about 20 kg of fish. But other types of boats bring a bigger catch as given in the table. The table also shows the speed of each type of boat, which is how far each boat goes in one hour. Look at the table and calculate:

Type of Boat	Catch of fish in 1 trip (Kg)	Speed of Boat
Log Boat	20	4 km per hour
Long Tail Boat	600	12 km per hour
Motor Boat	800	20 km per hour
Machine Boat	6000	22 km per hour

**20. About how much fish in all will each type of boat bring in seven trips?**

Ans.

Type of Boat	Catch of fish in 1 trip (Kg)	Catch of fish in 7 trip (Kg)
Log Boat	20	$20 \times 7 = 140$
Long Tail Boat	600	$600 \times 7 = 4200$
Motor Boat	800	$800 \times 7 = 5600$
Machine Boat	6000	$6000 \times 7 = 42000$

**21. About how far can a motor boat go in six hours?**

Ans.

Type of Boat	Speed of Boat	Distance covered by boat in 6 hours ( $D= S \times T$ )
Log Boat	4 km per hour	$4 \times 6 = 24$ km
Long Tail Boat	12 km per hour	$12 \times 6 = 72$ km
Motor Boat	20 km per hour	$20 \times 6 = 120$ km
Machine Boat	22 km per hour	$22 \times 6 = 132$ km

**22. If a long tail boat has to travel 60 km how long will it take?**

Ans. Speed of long tail boat = 12 km per hour

Time = Distance/Speed =  $60/12 = 5$  hour

Hence, the long tail boat will take 5 hour to travel 60 km.

## Some Big, Big Numbers!

In the Class IV Math you heard of the number 'lakh' which is equal to a hundred thousand. You had read that there are about one lakh brick kilns in our country.

### 23. What other things have you heard of in lakhs?

Ans. I have heard of following things in lakhs:

- Cost of Vehicles
- Value of house
- Population of town
- Number of workers

### 24. Write the number one thousand. Now write one hundred thousand. So how many zeroes are there in the number one lakh? Easy, isn't it?

Ans. One thousand = 1000

One hundred thousand = 100000

There are 5 zeroes in one lakh.

### 25. There are about two lakh boats in our country. Half of them are without a motor. What is the number of boats with a motor? Write it.

Ans. Total number of boats = 2 lakh

Number of boats without motor =  $2/2 = 1$  lakh

Number of boats with motor =  $2-1 = 1$  lakh

### 26. About one fourth of the boats with a motor are big machine boats. How many thousand machine boats are there? Come on, try to do it without writing down.

Ans. Number of motor boats = 100000

$1/4 \times 100000 = 25000$

Hence, number of machine boats = 25000 (twenty five thousand)

**One hundred lakh = 1 crore**

### 27. Where have you heard of a crore? What was the number used for? Try writing the number one crore. Don't get lost in all the zeroes!

Ans. I have heard that the population of India is in crores.

One crore = 10000000

There are 7 zeroes in one crore.

## The Fish Market

In this section students will learn about weights and money. How goods are sold in market place i.e. per kg or per piece and for what amount.

The fisherwomen are shouting out their prices to the buyers.

- Mini — “Come here! Come here! Take sardines at Rs. 40 a kg”.
- Gracy — “Never so cheap! Get sword-fish for Rs. 60 a kg”.
- Floramma sells prawns for Rs. 150 a kg.
- Karuthamma sells squid for Rs. 50 a kg.
- Fazila can hardly carry this big kingfish! She says,  
“This fish weighs 8 kg. I will sell the whole for ` 1200”.

**28. At what price per kg did Fazila sell the King fish?**

- Ans. Price of 8 kg of King fish = 1200 rupees  
Hence, price of 1 kg of King fish =  $1200/8 = 150$   
Hence, Fazilla sold the King fish at Rs 150 per kg.

**29. Floramma has sold 10 kg Prawns today. How much money did she get for that?**

- Ans. Price of 1 kg prawns = Rs 150  
Hence, price of 10 kg prawns =  $10 \times 150 = 1500$  rupees  
So, Floramma got Rs 1500 for her prawns.

**30. Gracy sold 6 kg sword fish. Mini has earned as much money as Gracy. How many kg of Sardines did Mini sell?**

- Ans. Price of 1 kg sword fish = Rs 60  
Hence, price of 6 kg sword fish =  $6 \times 60 = 360$  rupees  
Money earned by Mini = Rs 360  
Rate of sardines = Rs 40 per kg .  
Hence, sardines sold by Mini =  $360 \div 40 = 9$  kg

**31. Basheer has Rs. 100. He spends one-fourth of the money on squid and another three-fourth on prawns.**

(a) How many kilograms of squid did he buy?

- Ans. One fourth of Rs 100  
 $100 \div 4 = 25$  rupees  
Rs 50 gives 1 kg of squid  
Now 25 is half of 50  
Rs 25 gives  $1/2$  kg of squid

(b) How many kilograms of prawns did he buy?

Ans. Money left with Basheer

$$100 - 25 = 75 \text{ rupees}$$

Rs 150 buys 1 kg of prawns

Now 75 is half of 150

Rs 75 buys  $\frac{1}{2}$  kg of prawns

### Women's Meenkar Bank

**32. The meeting of the Meenkar Bank has just begun. Fazila is the president. Twenty fisher women have made their own bank. Each saves Rs 25 every month and puts it in the bank.**

(a) How much money does the group collect each month?

Ans. Collection from 1 woman = Rs 25

$$\text{Hence, collection from 20 women} = 20 \times 25 = \text{Rs } 500$$

(b) How much money will be collected in ten years?

Ans. Collection of 1 month = Rs 500

$$\text{Collection of 1 year} = 12 \times 500 = 6000 \text{ rupees (12 months in a year)}$$

$$\text{Hence, collection of 10 years} = 10 \times 6000 = 60000 \text{ rupees}$$

### Practice Time

**33. Gracy needs money to buy a net. Jhansi and her sister want to buy a log boat. So they take loan from their bank. They will return it with interest.**

**(a) Gracy took a loan of Rs 4,000 to buy a net. She paid back Rs 345 every month for one year. How much money did she pay back to the bank?**

Ans. Monthly installment paid by Gracy = Rs 345

$$\text{Total amount paid in a year} = 12 \times 345 = 4140 \text{ rupees}$$

Hence, Gracy paid Rs 4140 back to the bank

**(b) Jhansi and her sister took a loan of Rs 21,000 to buy a log boat. They paid back a total of Rs 23,520 in one year. How much did they pay back every month?**

Ans. Amount paid in one year = Rs 23,520

$$\text{Hence, amount paid in a month} = 2352 \div 12 = 1960 \text{ rupees}$$



## Why Don't We Start a New Fish-drying Factory?

The women of Meenkar Bank also want to start a factory to dry fish. The Panchayat has given them some land for that. Over the years they have saved Rs 74,000. They find out how much they will need for the factory.

**34. Fazila writes the things they need to buy to begin. See the table for the cost of each item and the number of items they want to buy. Find the total cost.**

Items	Price of each	Number of items	Cost
Bore well for fresh water	Rs. 3000	1	$3000 \times 1 = 3000$
Bamboo rack for fish drying	Rs. 2000	20	$2000 \times 20 = 40000$
Cement tank	Rs. 1000	4	$1000 \times 4 = 4000$
Tray and knife	Rs. 300	20	$300 \times 20 = 6000$
Bucket	Rs. 75	20	$75 \times 20 = 1500$

Total cost to set up the factory = **Rs 54500**

**How much fish can be dried per month?**

When fresh fish is dried it becomes  $\frac{1}{3}$  its weight.

In one month they plan to dry 6000 kg of fresh fish.

How much dried fish will they get in a month?  **$\frac{1}{3} \times 6000 = 2000$  kg**

**How much earnings per month?**

We buy fresh fish for Rs 15 per kg

We sell dried fish for Rs 70 per kg

We dry 6 kg fresh fish to get **2 kg** dried fish

For 6 kg fresh fish we have to pay  $6 \times$  **Rs 15** = Rs 90

We will sell 2 kg dried fish and get  $2 \times$  **Rs 70** = **Rs 140**

So if we dry 6 kg fresh fish we will earn **Rs 140** - 90 = **Rs 50**

But if we dry 6000 kg we can earn **Rs 50**  $\times$  1000 = **Rs 50000** in one month!

Jhansi — I found that for 6000 kg fish we would need 1500 kg salt every month!

Its price is Rs 2 per kg. Monthly costs:

a) Salt  $1500 \times 2 =$  **Rs 3000**

b) Packing and bus charges = **Rs 3000**

So the total monthly cost of drying, packing and bus charges = **Rs 50000 - Rs 3000 - Rs 3000 = Rs 44000**

**Fazila — That sounds very good! Our calculations tell us that every month our Bank will earn Rs 44,000!**