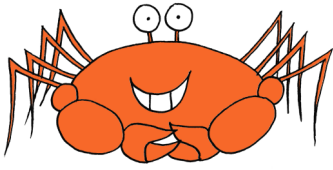
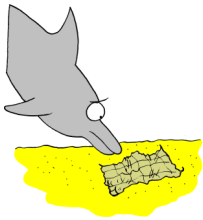
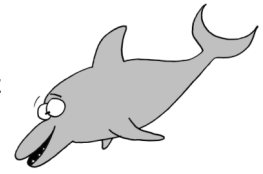


# Sunken Treasure

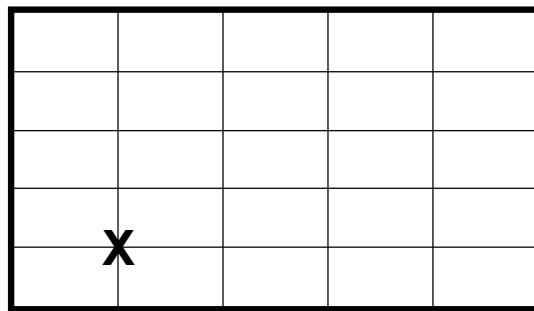


Deep under the sea lived a crafty crab called Claws, a lazy lobster called Larry and a naughty dolphin called Sly. There were also many fish that just loved going on adventures. One day Sly Dolphin decided to go for a swim. He set off from his home by the large wavy sea weed and headed into the blue.



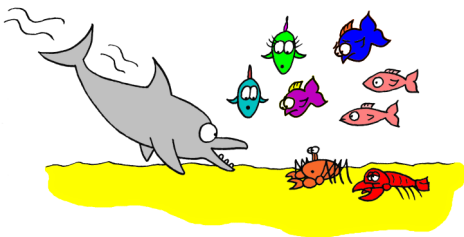
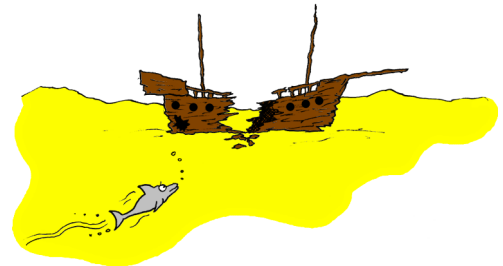
On his way he spotted a piece of tattered paper. He poked it with his nose and realised that it was a very special map.

This is what he found ...



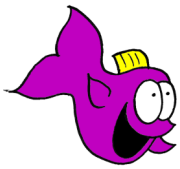
He travelled along the edges of the squares to reach the "X". He travelled along 8 edges. Can you work out the route that he travelled?

When Sly arrived, he was amazed to find an old sunken ship. He swam in through one of the portholes. He saw jewels, gold and treasure of all kinds. He was so excited; he didn't notice that he had dropped the map! Sly swam quickly back to see Claws, Larry and all the other fish.



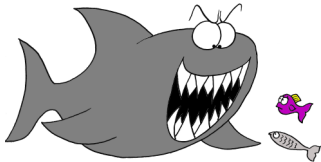
Sly told them about his discovery. Then he realised that he had lost the map. He did remember that it had five squares along the top, and five squares down the side. He also remembered that he had travelled along 8 edges. The fish decided to go off and find all the possible places the sunken ship could be.

Using a grid of the correct size, can you find all the possible places the fish could have travelled to? Each fish only travelled along each edge once. (Try and act out this problem using a grid in the playground or on a large floor area!)



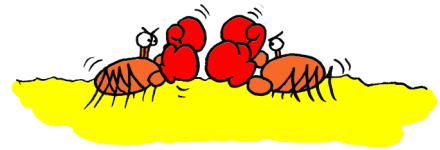
It wasn't long before Cyril Fish came whizzing back through the water to tell Sly dolphin that he had found the sunken ship. All the sea creatures followed him. As soon as they arrived, everyone went swimming through all the portholes and doorways searching through all the rooms. Soon, they were all feeling quite tired. Claws Crab had found a room with ten hammocks in a row. He suggested that everyone could sleep there.

If there are 2 lobsters, 3 crabs, 2 shark and 3 fish, can you organise who sleeps next to whom using these rules –

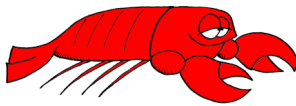


The sharks cannot sleep next to the fish because the shark would eat them.

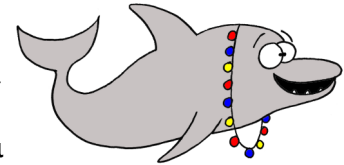
The crabs cannot sleep next to each other, as they fight!



Is there more than one way of solving this problem? (Try to draw a picture to help you solve this problem!)



Having had a short nap, all the sea creatures were ready to start playing with the treasure! Larry Lobster found some silver goblets and plates to juggle. Sly Dolphin found some shiny jewels. He found 10 red jewels, 10 blue jewels and 5 yellow jewels. He noticed some string nearby, so he decided to make a necklace for himself.

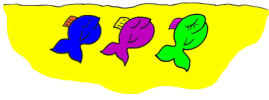


Can you help Sly to make his special necklace using a repeating pattern. There are so many different ways you could do this! Remember to use all the jewels! (Try to use beads, coloured cubes or counters to help you design your pattern!)



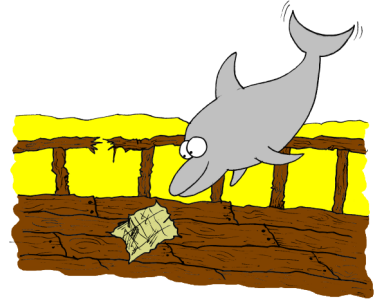
Suddenly there was an excited whoosh of bubbles coming from one of the rooms of the sunken ship. It was little Cyril Fish. He had found some bags of gold. Three other fish came quickly to see what all the noise was about. Cyril showed the others the four bags of gold. The problem was some of the bags were very heavy because they had a lot of gold inside! Cyril suggested that if they had the same amount of gold in each bag then they would be able to carry the bags back home with them.

In one bag was 6 bars of gold, in another was 3 bars, in another was 2 bars and in the last bag was 5 bars of gold. Using as few moves as possible, can you help Cyril put the same amount of gold in each bag? How many different ways can you find of solving this problem? (Try having a guess then check your answer and see if you can improve your solution! It may help to use cubes or draw a picture, or even act this problem out!)



Cyril was exhausted after all this hard work and he needed another nap! So did two of his friends, Fred Fish and Flo Fish. When they were snoozing, each of the fish blew bubbles at the same times, however Cyril Fish blew a big bubble every other bubble, Fred Fish blew a big bubble every 5<sup>th</sup> bubble and Flo Fish blew a big bubble every 10<sup>th</sup> bubble.

Can you work out when Cyril, Fred and Flo blow big bubbles at the same times? Can you guess how many times this would happen if they each blew 100 bubbles? (Try writing a list of bubbles for each of the fish side by side to solve this problem!)



Sly Dolphin was happily swimming round the back of the ship when he came across another piece of ripped paper. On this piece of paper was part of a table. At the top of the table were the words "Gold Treasure!". He knew that Cyril and his friends had already found the gold bars on this ship.

The table looked a little like this....

Gold Treasure	
Ship Number	Gold Bars
1	1
2	2
3	
4	
5	
6	
7	
8	



Sly suddenly realised that there must be eight sunken ships with gold bars. The first ship had 1 gold bar, the second ship had two gold bars.

Can you work out how many gold bars there could be on each of the ships and discover which number ship Sly and his friends had found? (Use the table to help you solve this problem!)

Sly Dolphin and all his friends had enjoyed their adventures on this ship and decided to find the other sunken ships.

Can you write a maths adventure for Sly and his friends on one of the other ships?

