

ORILAND
What Origami Can Be!

Glowfish & Friends

by Katrin and Yuri Shumakov



Origami Sea Series

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Introduction

CLOWNFISH & FRIENDS is a book from Origami Sea Series by Oriland authors that will teach you how to create cheerful sea creatures and their surrounding out of paper for your origami underwater party!

Do-It-Yourself – fold adorable Orange Clownfish, Cheerful Fish, Fairy Fish, Gold Fish, Sea Horse and their variations; and even take a challenge to fold a Clownfish relative! Make a cool space for paper fish and fold an underwater garden with wonderful Sea-Grass, bright Red Finger Sea Fans and Serrated Leaf Branches with Short Flower Holders. Originally designed by Katrin and Yuri Shumakov, these models are fun to fold and play with!

There are more than 300 detailed step-by-step colorful diagrams with comments, placed on 44 pages that will guide you through folding the 10 original origami designs of the Oriland style. The 'Origami Symbols' section is explaining international origami symbols to help you to read diagrams for folding. The models are ranging from simple to high-intermediate level of folding as shown by stars; some of them can be a good challenge for the novice and the expert alike.

Have fun at your origami underwater party! Happy folding!



Please remember that by buying items in Oriland Store you're directly supporting future Oriland's projects, as well as Oriland's development itself. Thank you!

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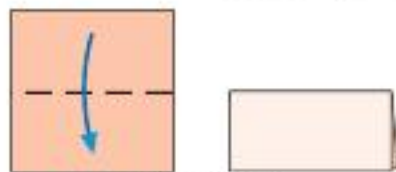
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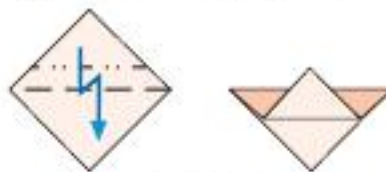
NOTE: The diagrams from this book may be printed out only for personal use, and may not be redistributed or republished in any way without the express written consent of the creator. For information, address info@oriland.com

Origami Symbols

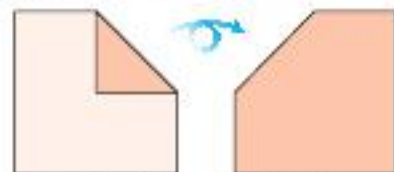
These simple origami symbols will help you to read diagrams of folding.



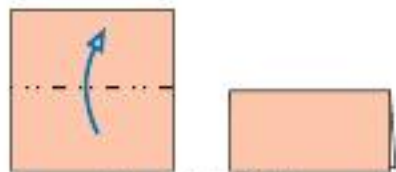
Valley fold



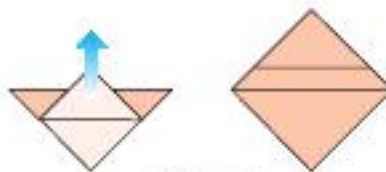
Step fold



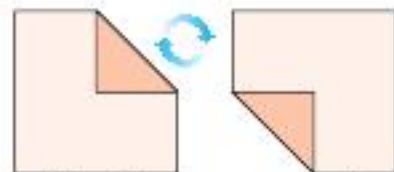
Turn the paper over



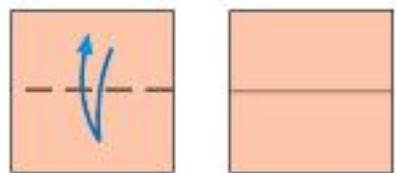
Mountain fold



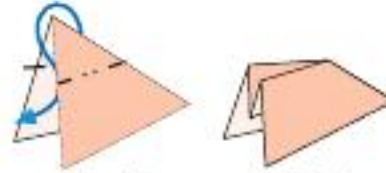
Pull out



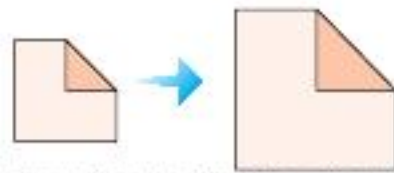
Turn the paper around



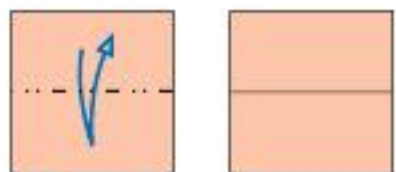
Valley fold and unfold



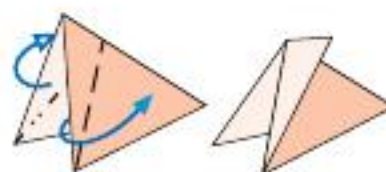
Inside reverse fold



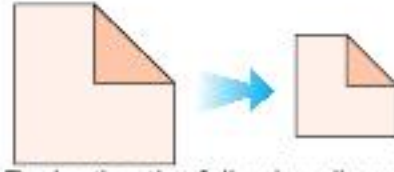
Enlarging the following diagram



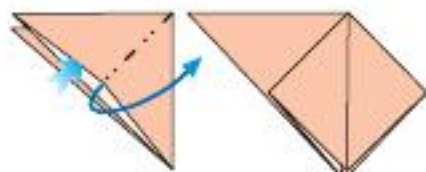
Mountain fold and unfold



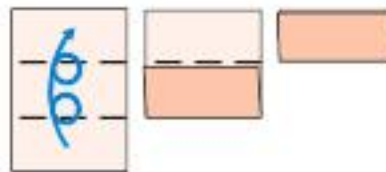
Outside reverse fold



Reduction the following diagram



Open and squash



Fold the paper over and over

Push in. Sink



X-ray view

.....

Level of folding

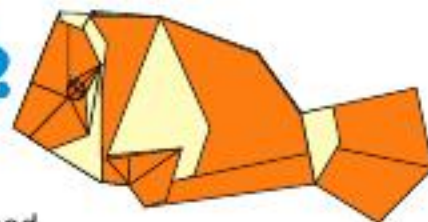
- ★☆☆☆☆ Simple
- ★★☆☆☆ Simple-Medium
- ★★★☆☆ Medium
- ★★★★☆ Medium-Complex
- ★★★★★ Complex

The system of levels of folding is more as a guide line, an approximate approach just to orient you and mostly depends of your skills in paper folding. If you are a novice, even the simple level can be challenging for you. And if you are already a connoisseur even a complex model can be simple for you.



Orange Clownfish

by Katrin Shumakov



Creating of this model was inspired by an orange clownfish named "Nemo", the main character of the animated movie "Finding Nemo". Really, the Clownfish is one of the cutest fishes and is very popular, especially after being a star in that movie.

Brightly colored with three white stripes at its head, middle and tail, this fish can grow to be from 2 to 5 inches (5 to 12 cm) long. These bright fishes are native to the warmer waters of the Indo-Pacific region and, of course, can be found in plenty of aquariums all around the world as well.

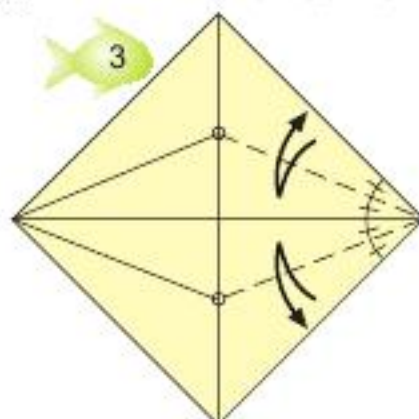
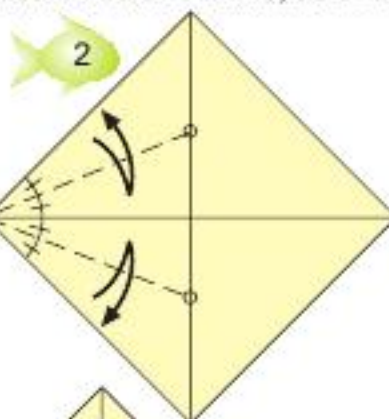
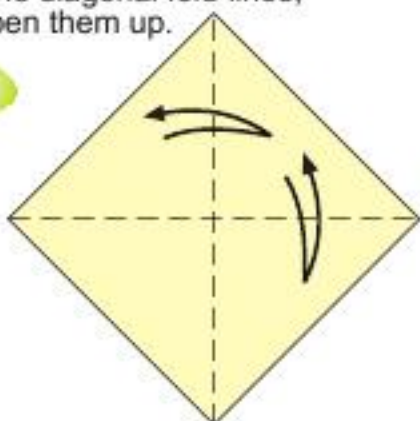
Use an approximately 8-inch (20 cm) square of paper. After you've mastered folding this model, try using a smaller square, for example, 6-inch (15 cm) square. The length of the finished model will be about the half of the side of the original square. Use two-color paper.

Begin with colored side down.

Valley fold the opposite corners together, in turn, to mark the diagonal fold-lines, and open them up.

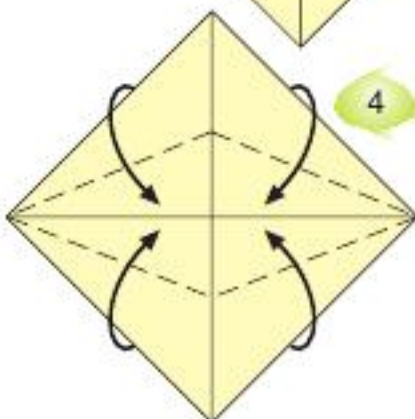
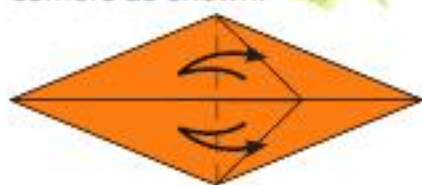
Bring the left-hand top and bottom sloping edges to meet the horizontal middle fold-line. Crease only as far as the vertical middle fold-line, as shown.

Repeat the same from the right-hand corner.



Valley fold and unfold middle corners as shown.

5



4

Valley fold the top and bottom edges along the fold-lines made in steps 2 and 3, pinching the top and bottom corners and folding them over to the right as shown in the next step. Press the paper down neatly, thereby completing the shape that, in origami, is called the fish base.



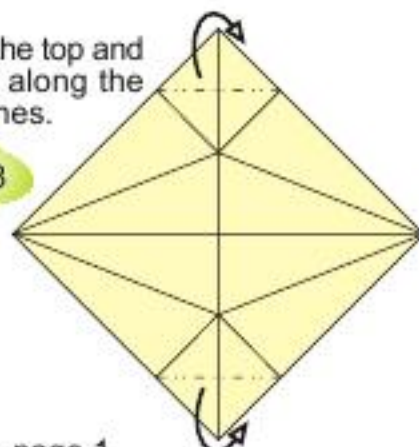
Valley fold the triangular flaps in half, as shown. Press them flat and unfold them.

Open out the paper.

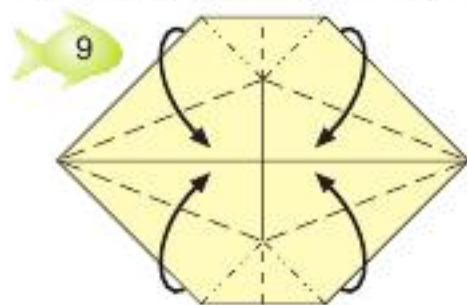


Mountain fold the top and bottom points along the existing fold-lines.

8



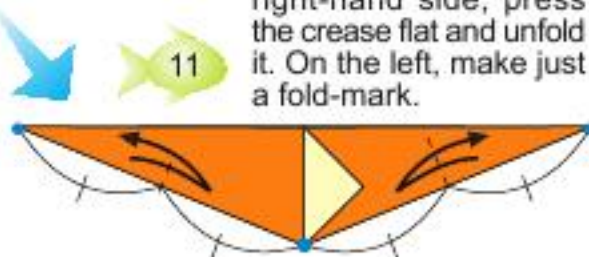
Valley fold the top and bottom edges along the existing fold-lines, thereby bringing the paper into the position shown in the next step.



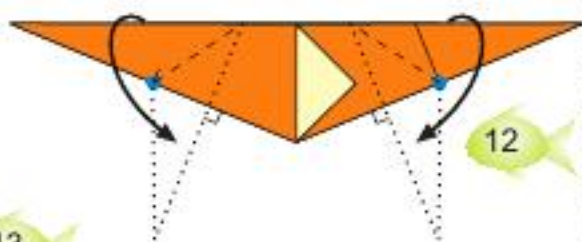
Mountain fold the top half of the model behind.



Valley fold the side points over to meet the middle bottom point. On the right-hand side, press the crease flat and unfold it. On the left, make just a fold-mark.



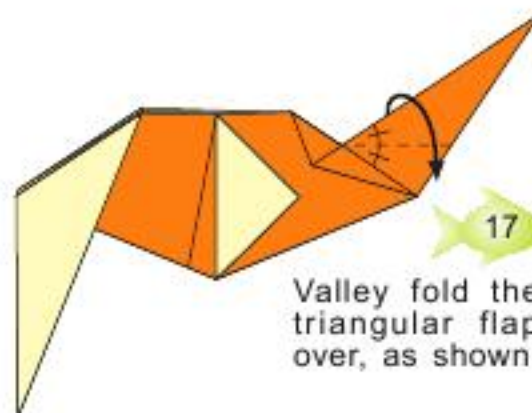
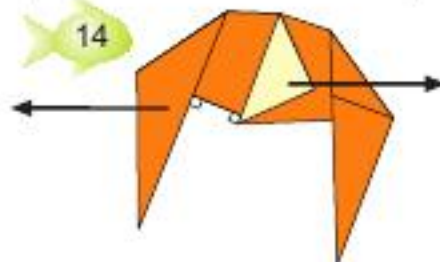
Step fold all the layers in the middle to the left, so the long edge of the middle triangular flap becomes perpendicular to the sloping edge of the model, as shown by the dotted silhouette.



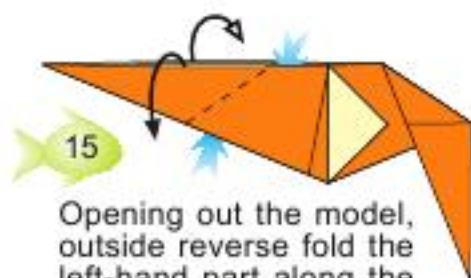
Valley fold the right-hand point over the marked dot down, so that the long edge of the triangular flap becomes perpendicular to the sloping edge of the model, as shown by the dotted silhouette. Then, repeat the same on the left-hand point.



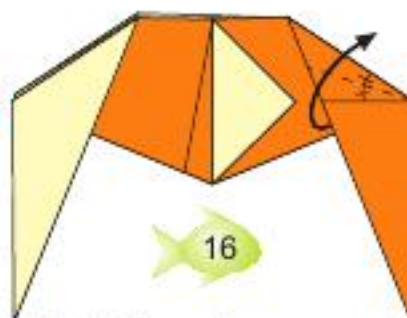
Now open out the left-hand flap and middle folds into the position shown in the next step.



Valley fold the triangular flap over, as shown.

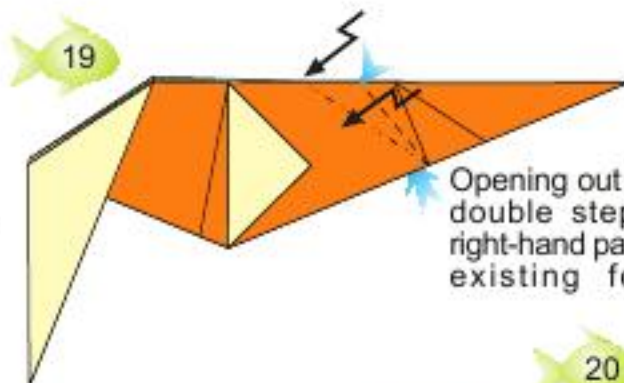
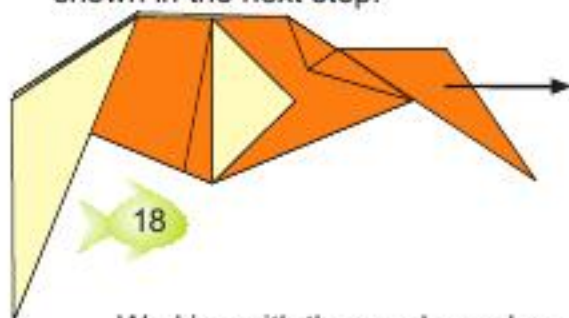


Opening out the model, outside reverse fold the left-hand part along the existing fold-lines.



Valley fold the right-hand flap up, so the horizontal fold-line aligns with the top sloping edge, as shown.

Pull the right-hand point out, thereby unfolding creases into the position shown in the next step.

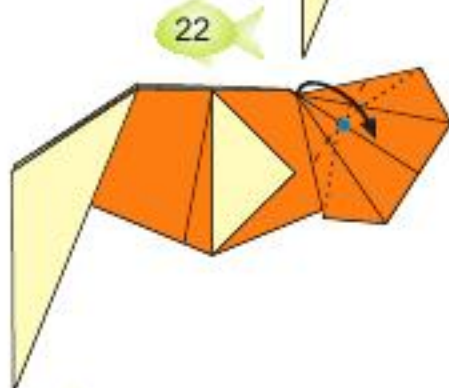
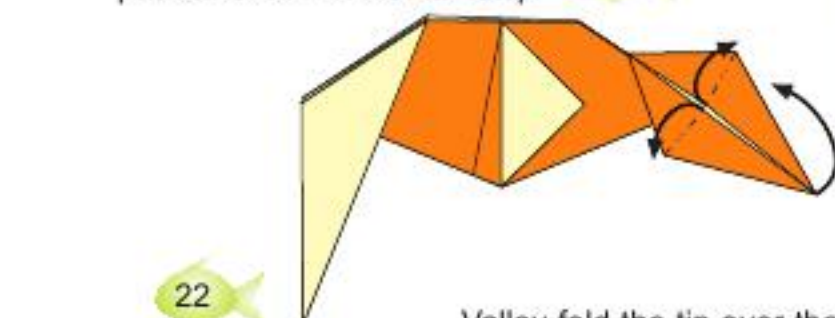


Opening out the model, double step fold the right-hand part along the existing fold-lines.

Working with the quadrangular surface, open out the flaps and transform the paper into the position shown in the next step.



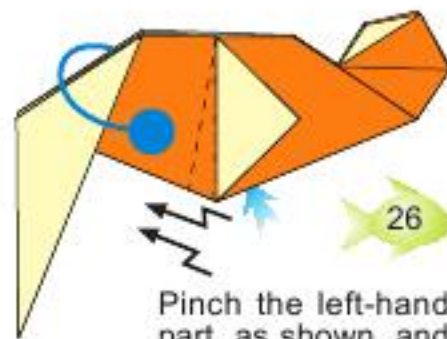
Separate the layers, as shown, and along the existing fold-lines, squash the right-hand triangular flap into a quadrangle.



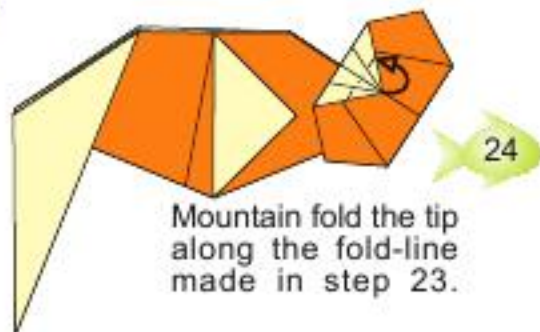
Valley fold the tip over the dot, which is the intersection of the internal layers, shown by dotted lines. Note, the tip should lie on the flap's middle fold-line.



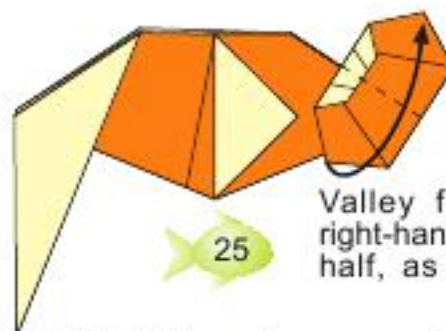
Valley fold the small triangular flap in half, as shown. Press it flat and unfold it.



Pinch the left-hand part, as shown, and double step fold the middle part along the existing fold-lines, covering the pinched part from both sides.



Mountain fold the tip along the fold-line made in step 23.



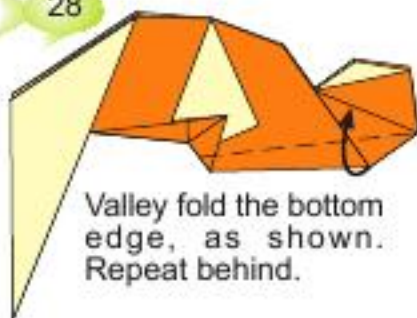
Valley fold the right-hand flap in half, as shown.

Valley fold the bottom point of the middle part over one third of the triangular flap, as shown, at the same time, valley folding the bottom edge, thereby outlining the fin. Repeat behind.



27

28



Valley fold the bottom edge, as shown. Repeat behind.

Correct the position of the fin, straighten it out above the adjacent layer. Repeat behind.

29



31

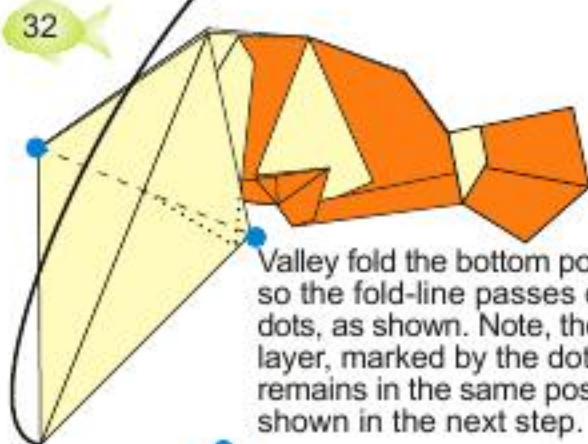
Working from the top left-hand corner, separate one layer and valley fold it to the right, as shown, so the fold-line passes through the dot. At the same time, fold the triangular flap to the right to receive the result shown in the next step.



30

Separate the layers at the right-hand side, as shown. Bring the bottom point up between the layers, at the same time lower the top flaps down, thereby shaping the tail, as shown in the next step.

32



Valley fold the bottom point over, so the fold-line passes over the dots, as shown. Note, the shifted layer, marked by the dotted line, remains in the same position, as shown in the next step.



33

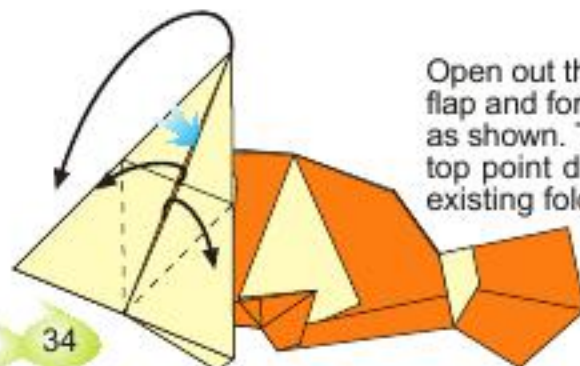
Valley fold the top point over to meet the middle of the flap, so the dots coincide. Press the fold flat and unfold it.

Valley fold the bottom point of the front flap up, as shown.

35



34



Open out the layers of the flap and form 'valley' folds as shown. Then, bring the top point down along the existing fold-line.

Mountain fold the tip of the front flap backward to meet the the internal edge's middle, which is shown by the dot.

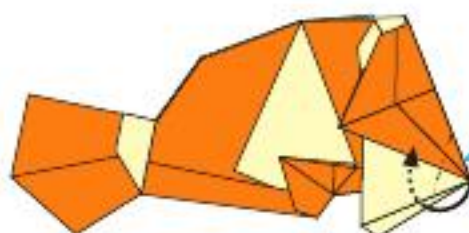


36

This should be the result. Turn the model over.



37



39

Inside reverse fold the right-hand point, as shown.



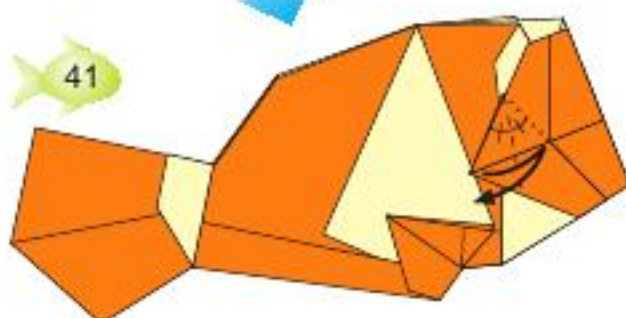
38

Working from the right-hand side, separate one layer and valley fold it to the left, as shown, so the fold-line passes through the dot. At the same time, fold the right-hand flap to the left to form the face as shown in the next step.



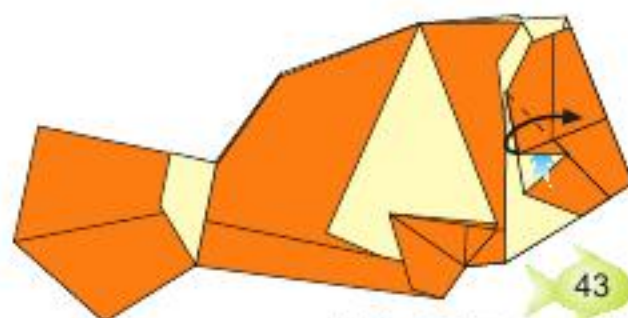
40

Separate the layers at the bottom, and mountain fold the edge inside the model, as shown. Repeat behind.



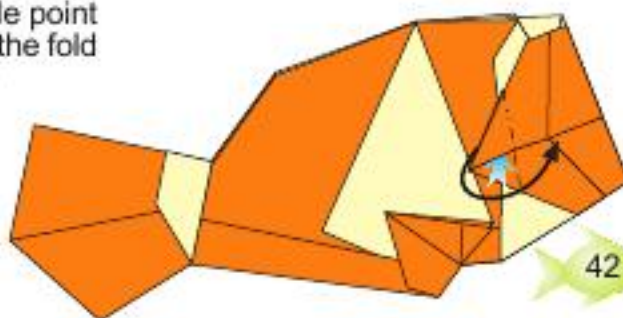
41

Working with the face, valley fold the side point as shown. Press the fold flat and unfold it.



43

Valley fold the small flap to the right.



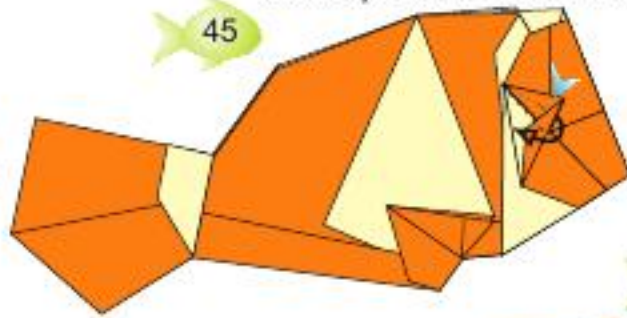
42

Open the layer as shown, and inside reverse fold the side point along the fold-lines made in step 41.

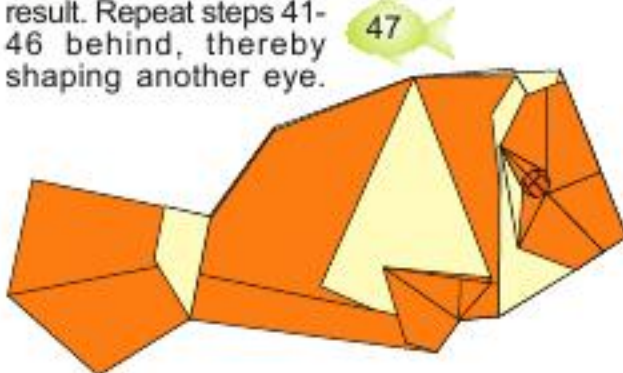
Valley fold the side point as shown.



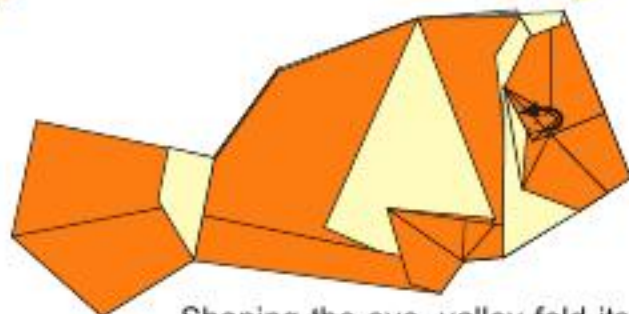
Open out the small narrow flap and squash it into a triangle.



This should be the result. Repeat steps 41-46 behind, thereby shaping another eye.



46



Shaping the eye, valley fold its top edge as shown. Fix the paper at the side corners, squashing them in narrow triangular flaps.

Clownfish Challenge



Here is a challenge for you: try to figure out how to fold this clownfish relative. Using the techniques of making Orange Clownfish and Fairy Fish will be essential.

48



Working with the middle flap, valley fold its left-hand point over to touch the fin's tip. Press it flat and unfold it. Repeat behind.

Separate the layers of the middle flap and inside reverse fold its left-hand point. Repeat behind.

49



To make the fish more tubby, insert the finger inside the model, shape it and fix the paper.

50



Here is the completed Orange Clownfish, ready for Nemo's adventure.



Cheerful Fish

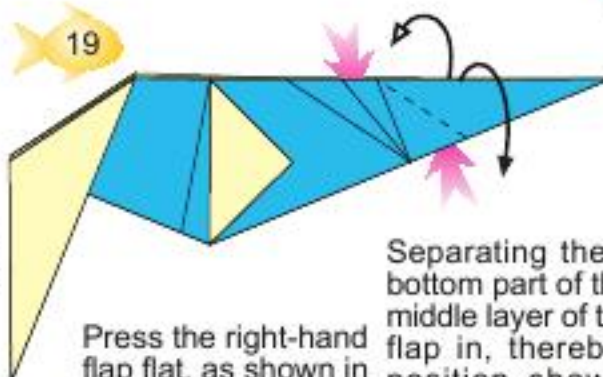
by Katrin Shumakov

To do this Cheerful Fish, use an approximately 8-inch (20 cm) square of paper. After you've mastered folding this model, try using a smaller square, for example, 6-inch (15 cm) square. The length of the finished model will be about the half of the side of the original square. It's better to use two-color paper.

If using two-color paper, begin with colored side down.

First 18 steps are the same as for the Clownfish.

Opening out the model, outside reverse fold the right-hand part along the fold-line made in step 17.

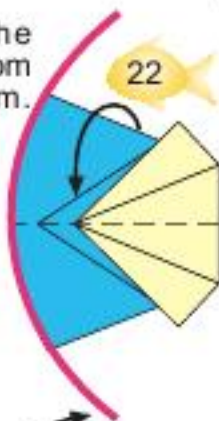


Press the right-hand flap flat, as shown in the next step.

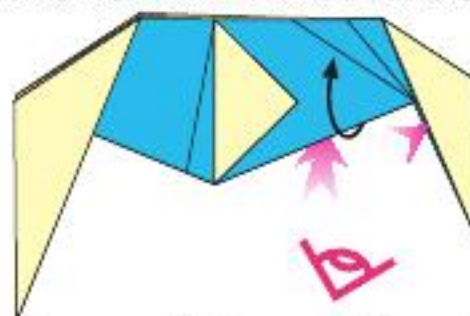
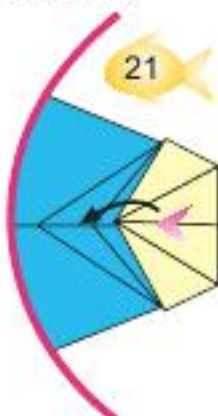
Separating the layers, open out the bottom part of the model and push the middle layer of the right-hand triangular flap in, thereby bringing it into the position shown in the next step.

20

Valley fold the model in half from top to bottom.

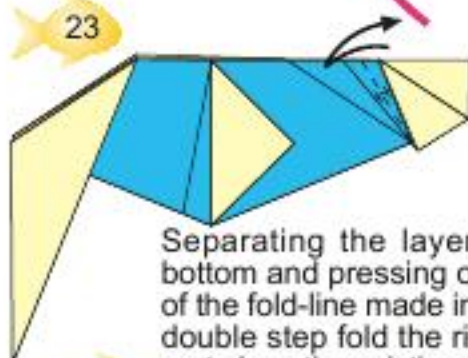


Valley fold the paper between the two fold-lines, as shown. Press it flat and unfold it.



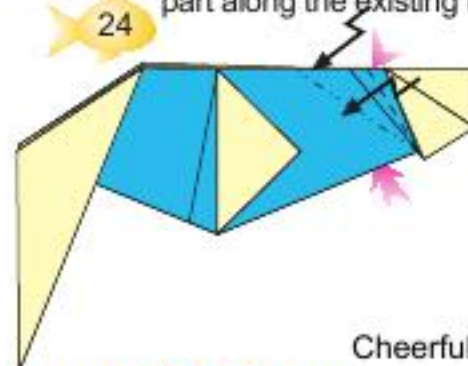
The opened bottom part of the model is shown in the following steps, as if you are looking at it from a position shown by the 'eye' symbol.

23

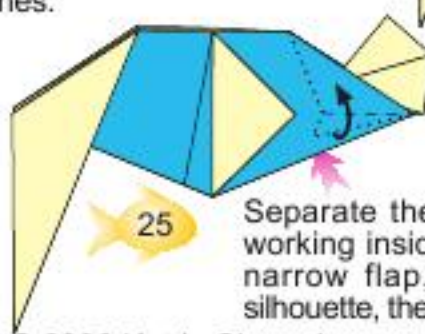


Separating the layers at the bottom and pressing on the top of the fold-line made in step 23, double step fold the right-hand part along the existing fold-lines.

24

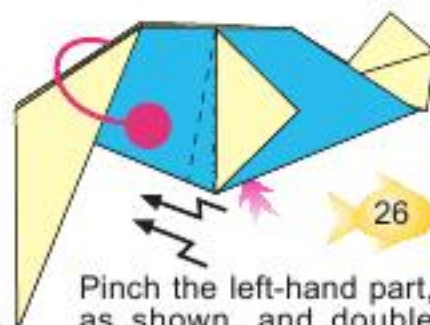


25



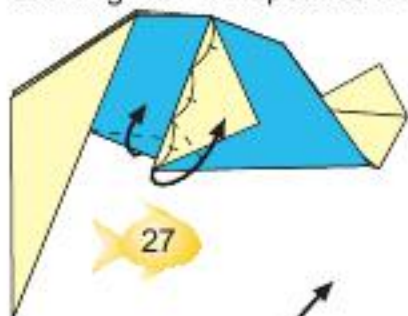
Separate the layers at the bottom, and working inside the model, valley fold the narrow flap, as shown by the dotted silhouette, thereby locking the tail's creases.

26



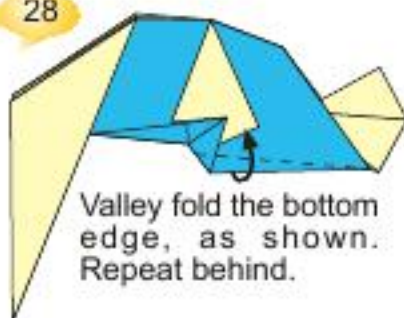
Pinch the left-hand part, as shown, and double step fold the middle part along the existing fold-lines, covering the pinched part from both sides.

Valley fold the bottom point of the middle part over one third of the triangular flap, as shown, at the same time, valley folding the bottom edge, thereby outlining the fin. Repeat behind.



27

28



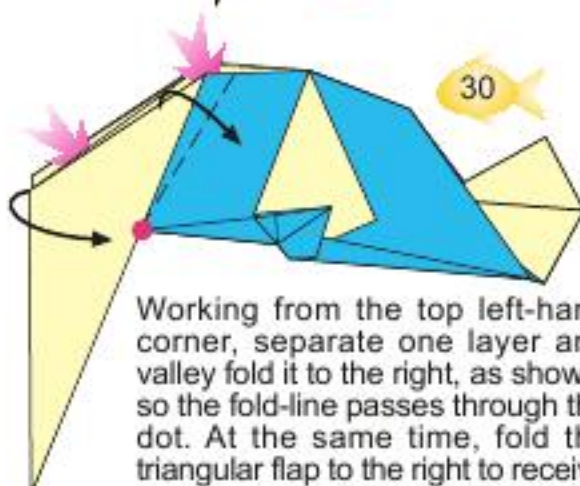
Valley fold the bottom edge, as shown. Repeat behind.

29



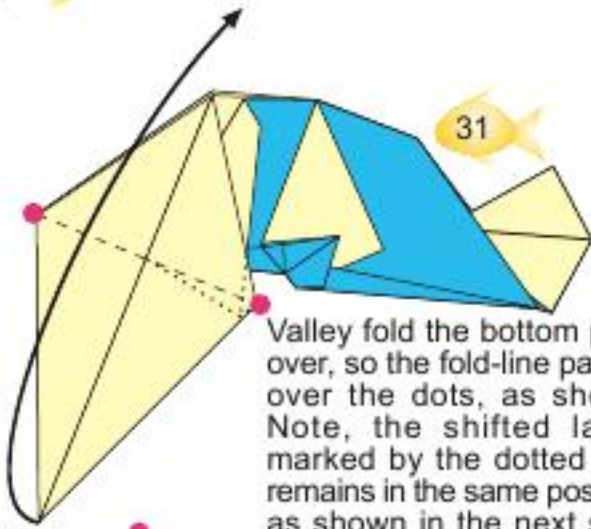
Correct the position of the fin, straighten it out above the adjacent layer. Repeat behind.

30



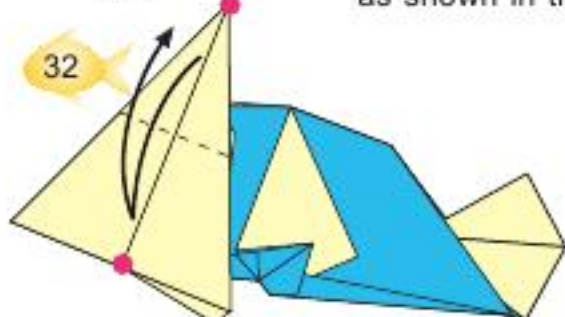
Working from the top left-hand corner, separate one layer and valley fold it to the right, as shown, so the fold-line passes through the dot. At the same time, fold the triangular flap to the right to receive the result shown in the next step.

31



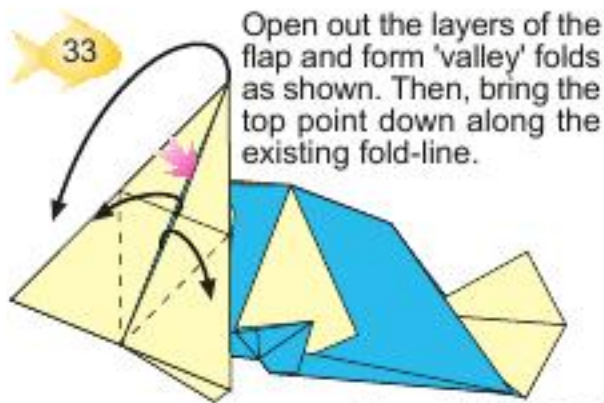
Valley fold the bottom point over, so the fold-line passes over the dots, as shown. Note, the shifted layer, marked by the dotted line, remains in the same position, as shown in the next step.

32



Valley fold the top point over to meet the middle of the flap, so the dots coincide. Press the fold flat and unfold it.

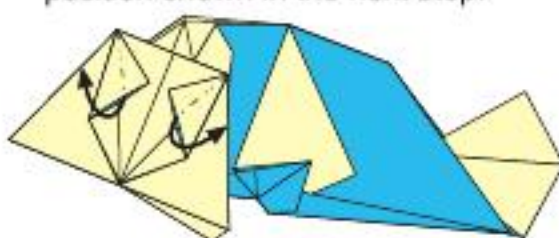
33



Open out the layers of the flap and form 'valley' folds as shown. Then, bring the top point down along the existing fold-line.

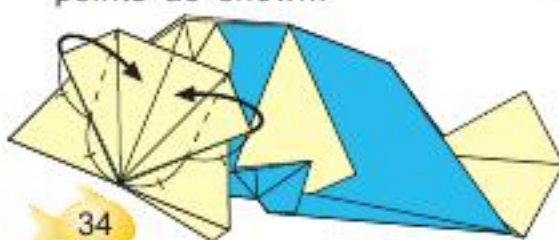
Open out the small triangular flaps and squash them into the position shown in the next step.

35

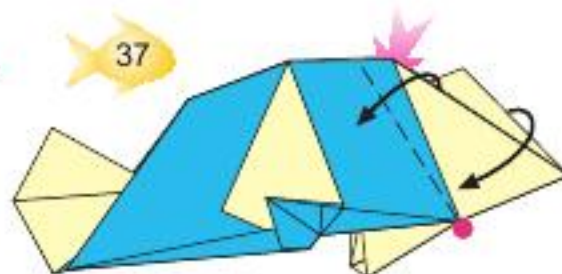
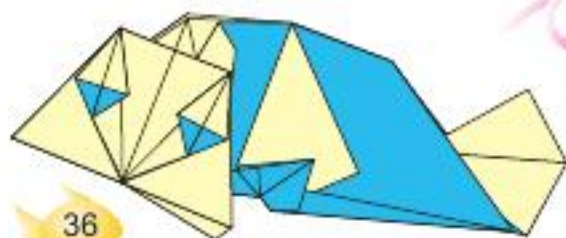


Valley fold the side points as shown.

34

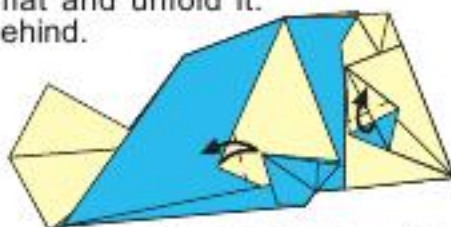


This should be the result. Turn the model over the vertical axis.

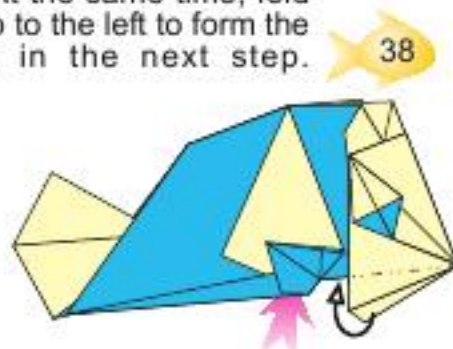


Working from the right-hand side, separate one layer and valley fold it to the left, as shown, so the fold-line passes through the dot. At the same time, fold the right-hand flap to the left to form the face as shown in the next step.

Working with the middle flap, valley fold its left-hand point over to touch the fin's tip. Press it flat and unfold it. Repeat behind.

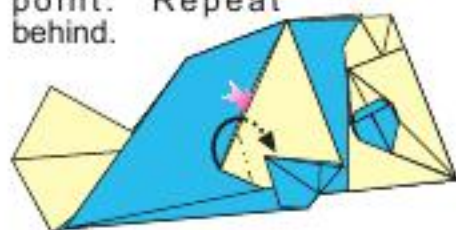


Shaping the eye, valley fold its top edge as shown. Fix the paper at the side corners, squashing them in narrow triangular flaps. Repeat behind.

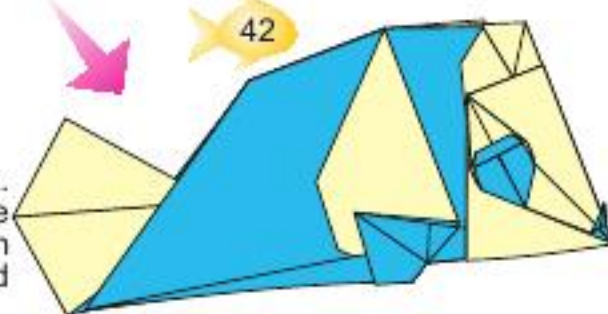


Separate the layers at the bottom, and working with the face, mountain fold its edge inside the model, as shown. Repeat behind.

Separate the layers of the middle flap and inside reverse fold its left-hand point. Repeat behind.



Working with the face, separate the layers at the bottom, lift up the bottom corner of the front layer a little, thereby shaping the lips.



This should be the result. Inserting the finger inside the model, shape the fish making it more tubby and fix the paper.



Here is the completed cheerful fish.



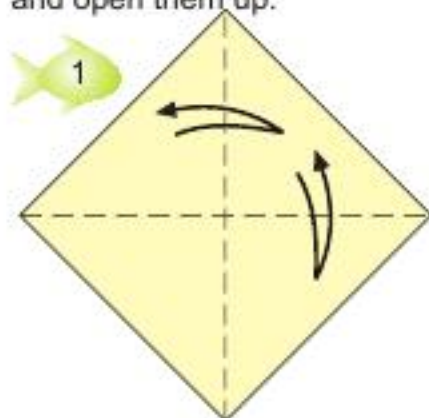
Fairy Fish

by Katrin Shumakov

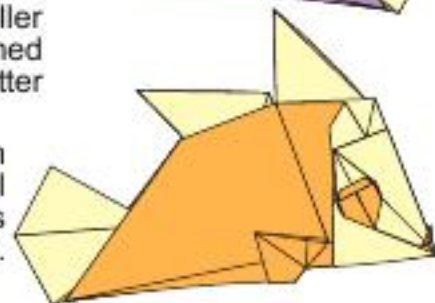
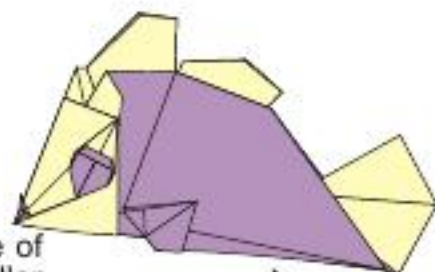
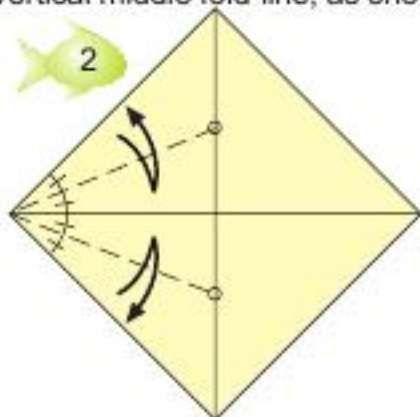
For the Fairy Fish, use an approximately 8-inch (20 cm) square of paper. After you've mastered folding this model, try using a smaller square, for example, 6-inch (15 cm) square. The length of the finished model will be about the half of the side of the original square. It's better to use two-color paper.

If using two-color paper, begin with colored side down.

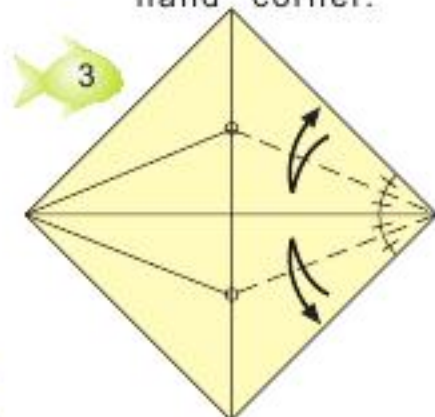
Valley fold the opposite corners together, in turn, to mark the diagonal fold-lines, and open them up.



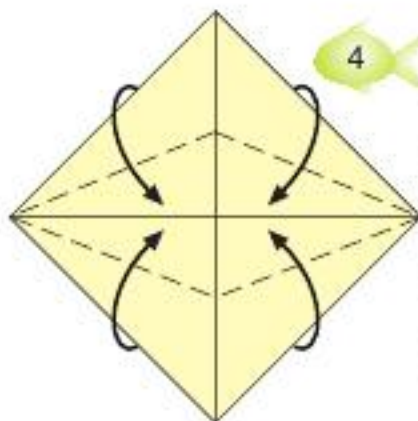
Bring the left-hand top and bottom sloping edges to meet the horizontal middle fold-line. Crease only as far as the vertical middle fold-line, as shown.



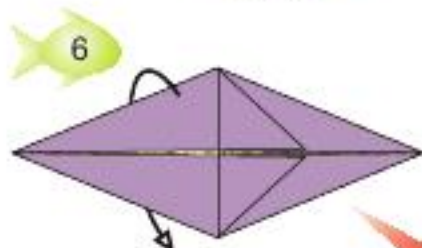
Repeat the same from the right-hand corner.



Valley fold and unfold middle corners as shown.

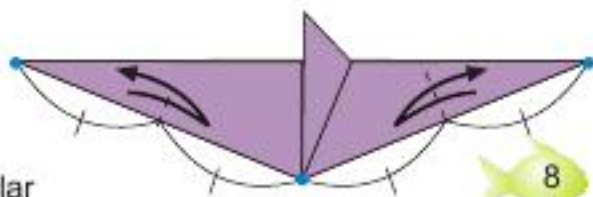
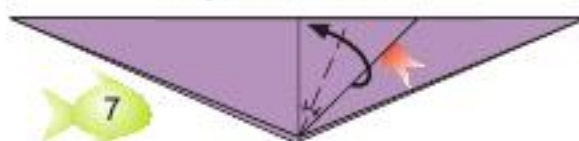


Valley fold the top and bottom edges along the fold-lines made in steps 2 and 3, pinching the top and bottom corners and folding them over to the right as shown in the next step. Press the paper down neatly, thereby completing the shape that, in origami, is called the fish base.



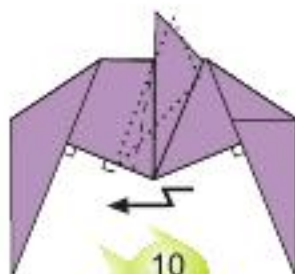
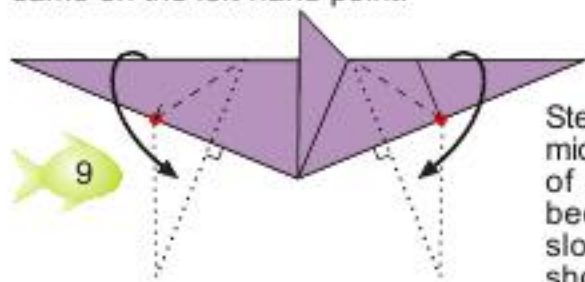
Mountain fold the top half of the model behind.

Valley fold the triangular flap in half, as shown. Repeat behind.

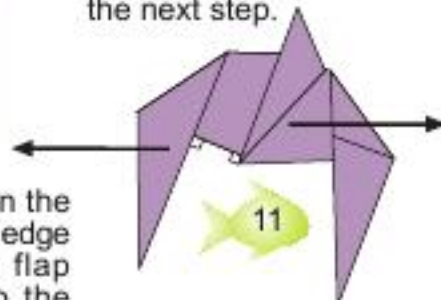


Valley fold the side points over to meet the middle bottom point. On the right-hand side, press the crease flat and unfold it. On the left, make just a fold-mark.

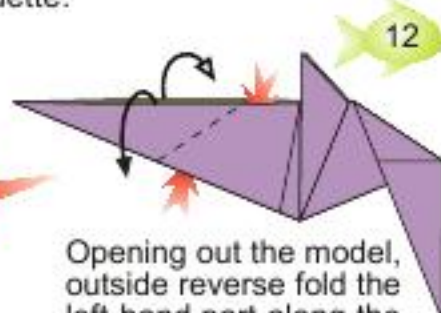
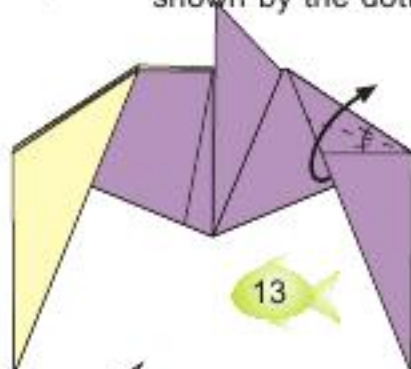
Valley fold the right-hand point over the marked dot down, so that the long edge of the triangular flap becomes perpendicular to the sloping edge of the model, as shown by the dotted silhouette. Then, repeat the same on the left-hand point.



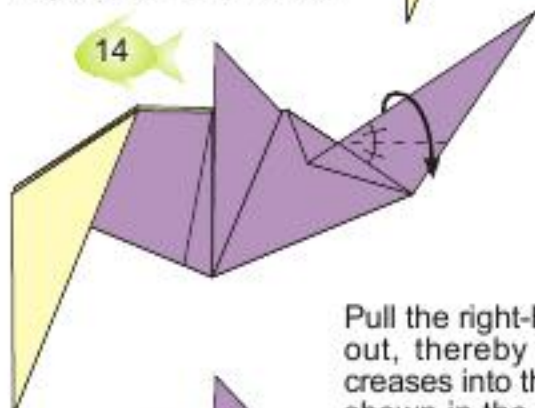
Now open out the left-hand flap and middle folds into the position shown in the next step.



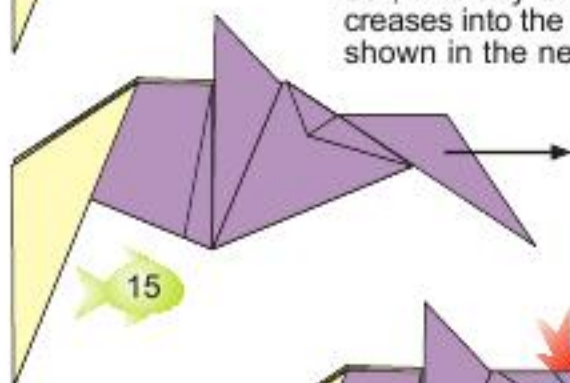
Step fold the all the layers in the middle to the left, so the long edge of the middle triangular flap becomes perpendicular to the sloping edge of the model, as shown by the dotted silhouette.



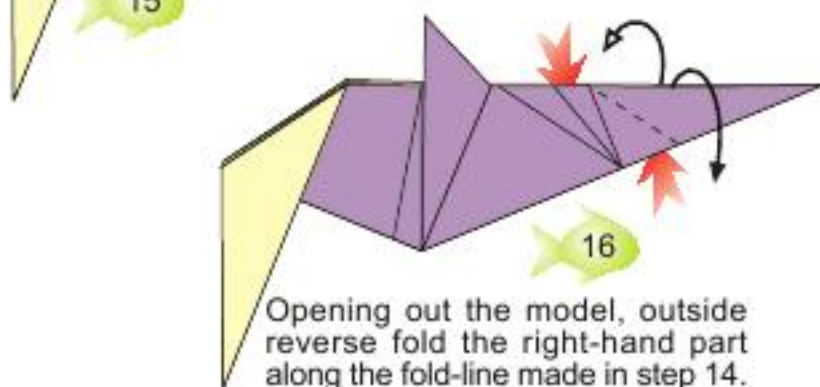
Valley fold the triangular flap over, as shown.



Valley fold the right-hand flap up, so the horizontal fold-line aligns with the top sloping edge, as shown.

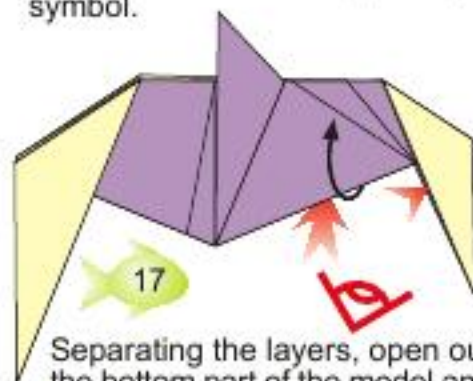


Pull the right-hand point out, thereby unfolding creases into the position shown in the next step.



Opening out the model, outside reverse fold the right-hand part along the fold-line made in step 14.

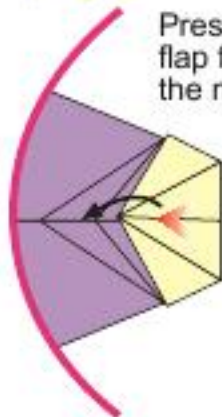
The opened bottom part of the model is shown in the following steps, as if you are looking at it from a position shown by the 'eye' symbol.



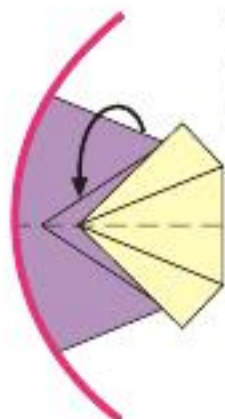
Separating the layers, open out the bottom part of the model and push the middle layer of the right-hand triangular flap in, thereby bringing it into the position shown in the next step.

18

Press the right-hand flap flat, as shown in the next step.

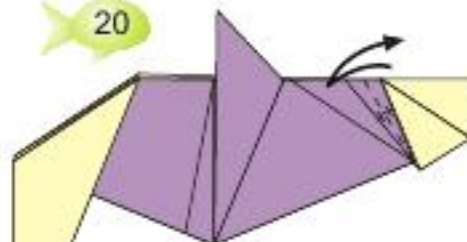


Valley fold the model in half from top to bottom.

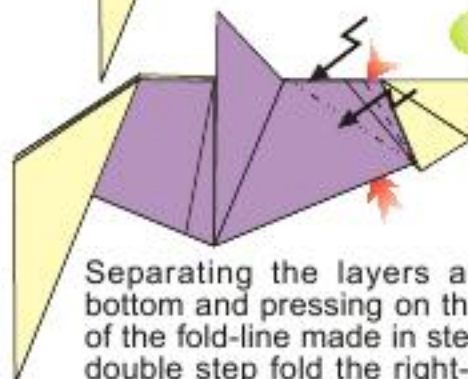


Valley fold the paper between the two fold-lines, as shown. Press it flat and unfold it.

20

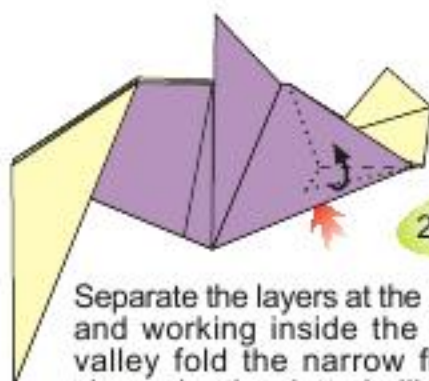


21



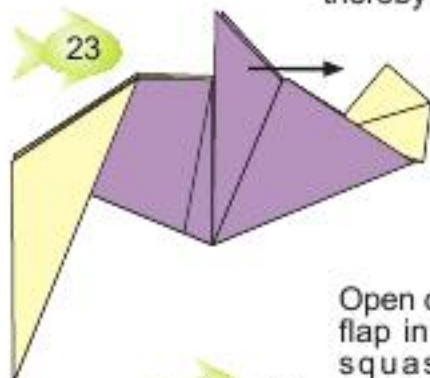
Separating the layers at the bottom and pressing on the top of the fold-line made in step 20, double step fold the right-hand part along the existing fold-lines.

22



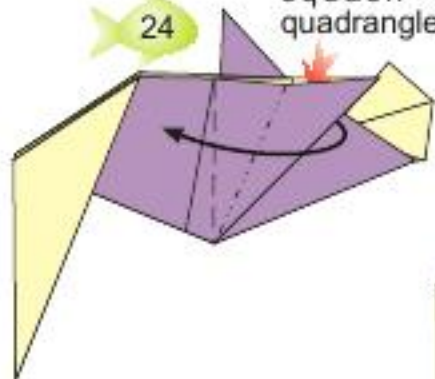
Separate the layers at the bottom, and working inside the model, valley fold the narrow flap, as shown by the dotted silhouette, thereby locking the tail's creases.

23



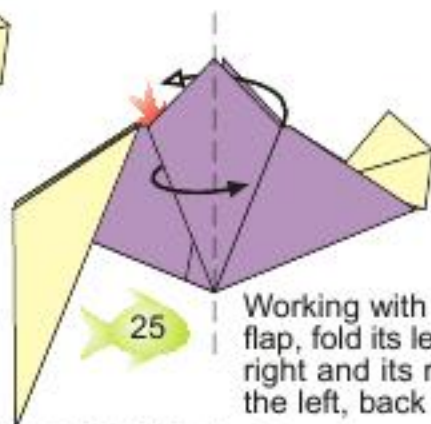
Pull the front narrow flap out into the position shown in the next step.

24



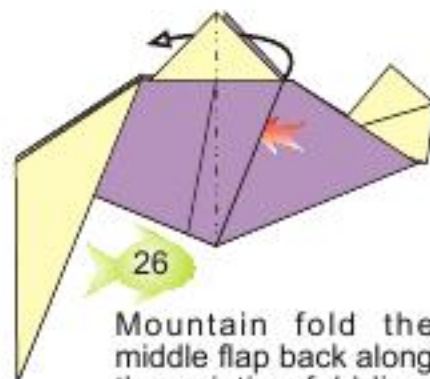
Open out the triangular flap in the middle and squash it into a quadrangle.

25



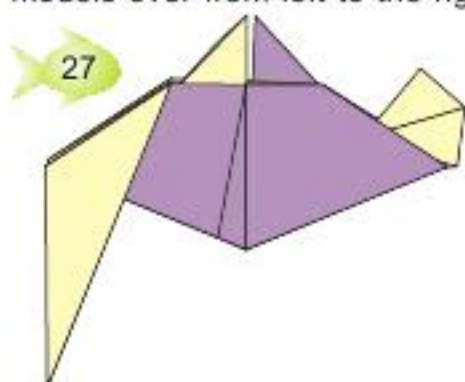
Working with the quadrangular flap, fold its left-hand half to the right and its right-hand half to the left, back inside the model.

26



Mountain fold the middle flap back along the existing fold-line.

This should be the result. Turn the models over from left to the right.

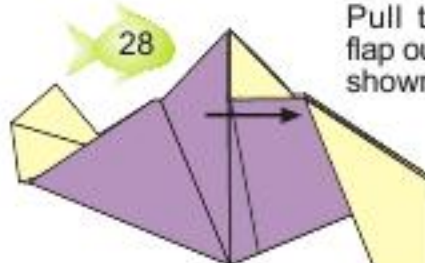


27

Open out the triangular flap in the middle and inside reverse fold it, as shown, along the fold-line made in step 29.

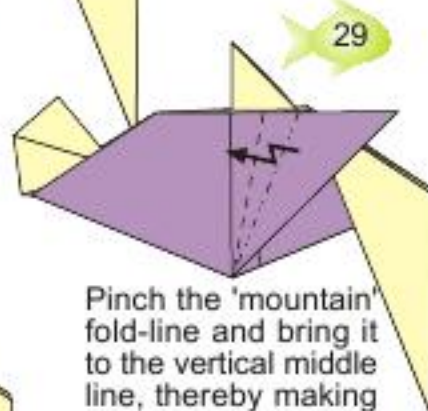


31



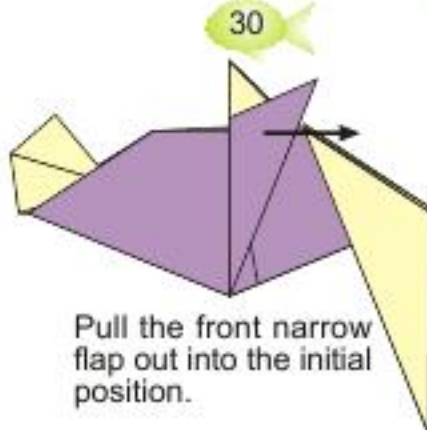
28

Pull the front narrow flap out into the position shown in the next step.



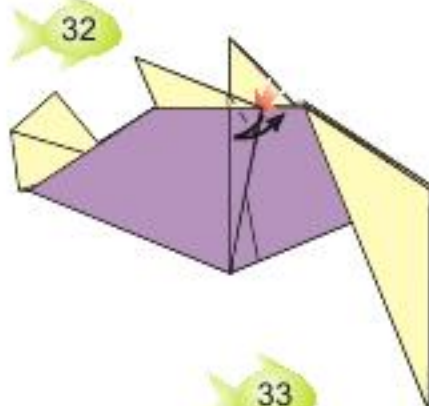
29

Pinch the 'mountain' fold-line and bring it to the vertical middle line, thereby making the 'valley' fold. Press the fold flat.



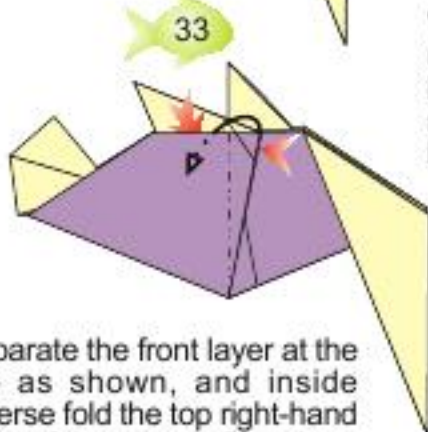
30

Pull the front narrow flap out into the initial position.



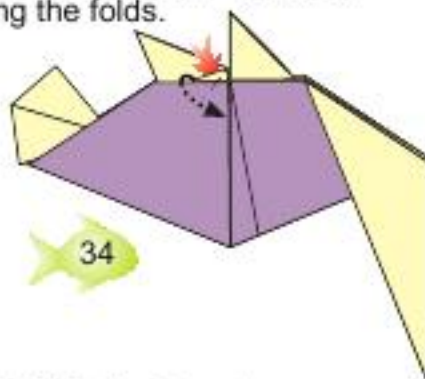
32

Working with the narrow flap in the middle, valley fold the top right-hand point to meet the vertical middle line. Press it flat and unfold it.



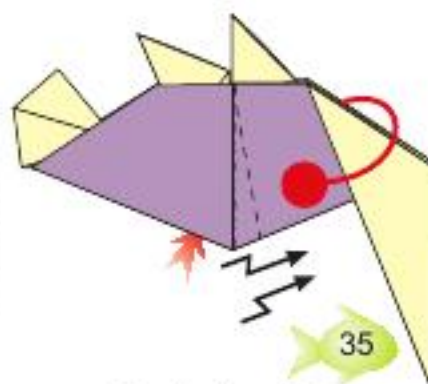
33

Working with the narrow flap under front layer, valley fold the inside corner along the fold-line made in step 32, thereby locking the folds.



34

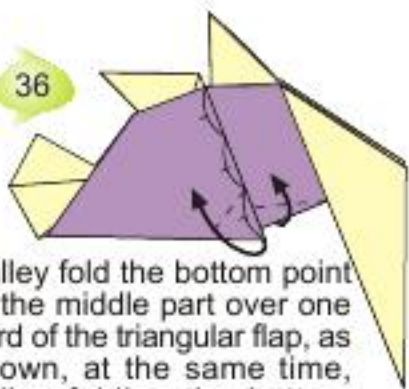
Separate the front layer at the top as shown, and inside reverse fold the top right-hand point of the narrow flap along the vertical middle line.



35

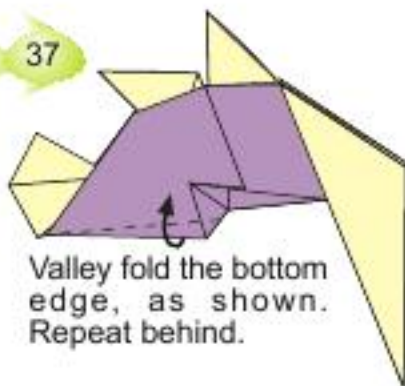
Pinch the right-hand part, as shown, and double step fold the middle part along the existing fold-lines, covering the pinched part from both sides.

36



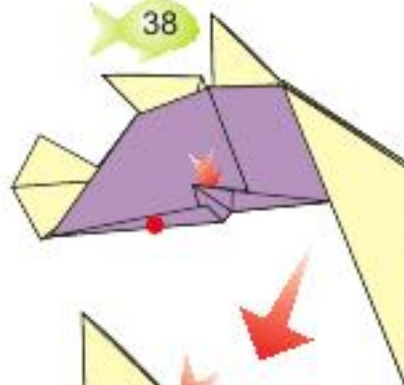
Valley fold the bottom point of the middle part over one third of the triangular flap, as shown, at the same time, valley folding the bottom edge, thereby outlining the fin. Repeat behind.

37



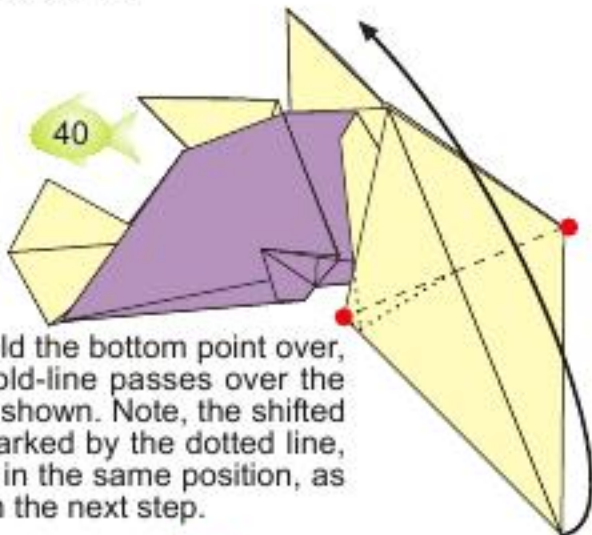
Valley fold the bottom edge, as shown. Repeat behind.

38



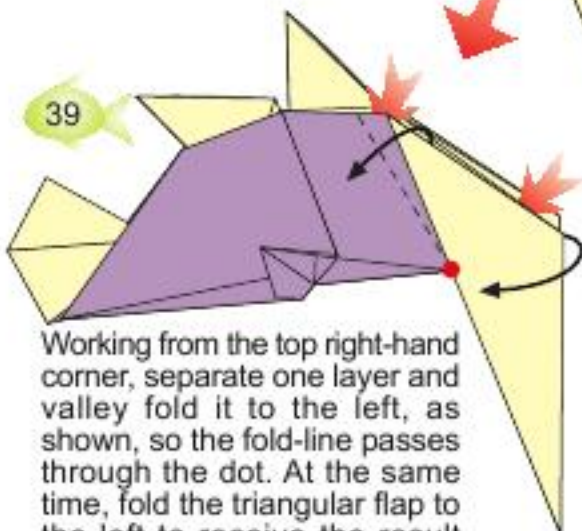
Correct the position of the fin, straighten it out above the adjacent layer. Repeat behind.

40



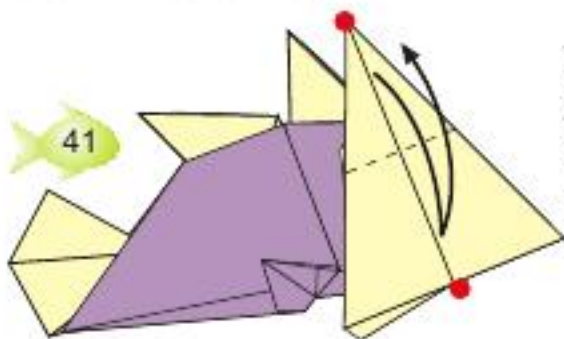
Valley fold the bottom point over, so the fold-line passes over the dots, as shown. Note, the shifted layer, marked by the dotted line, remains in the same position, as shown in the next step.

39



Working from the top right-hand corner, separate one layer and valley fold it to the left, as shown, so the fold-line passes through the dot. At the same time, fold the triangular flap to the left to receive the result shown in the next step.

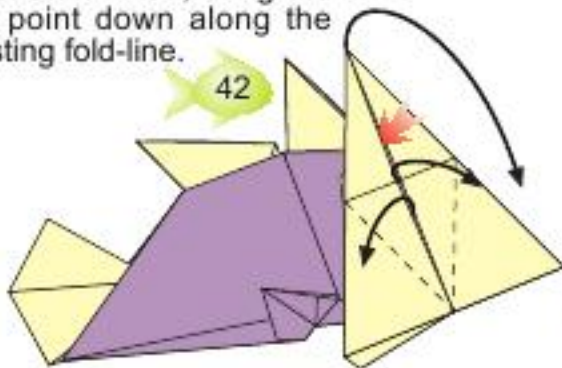
41



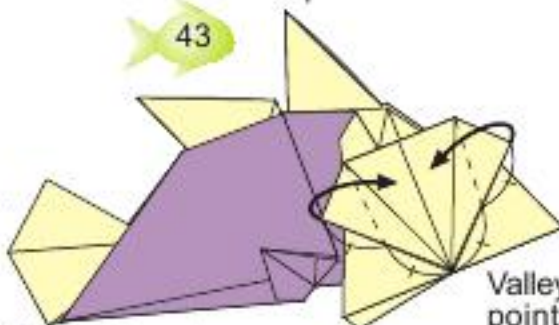
Valley fold the top point over to meet the middle of the flap, so the dots coincide. Press the fold flat and unfold it.

Open out the layers of the flap and form 'valley' folds as shown. Then, bring the top point down along the existing fold-line.

42

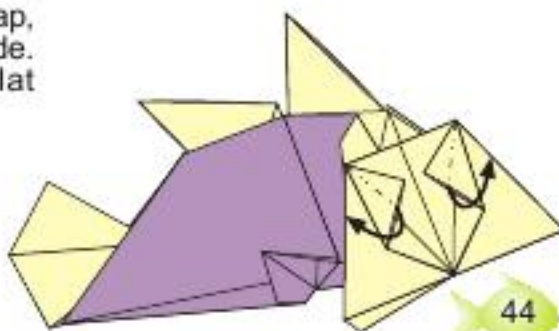


43



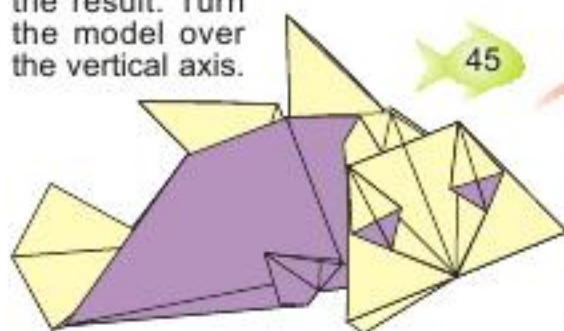
Open out the small triangular flaps and squash them into the position shown in the next step.

44

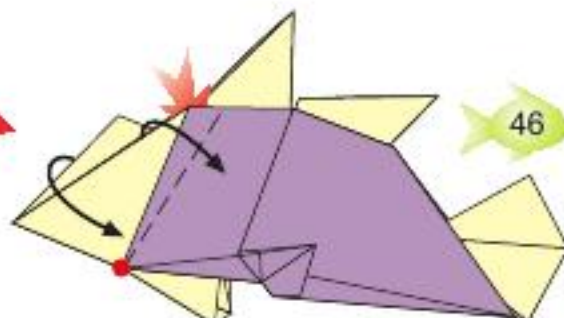


Valley fold the side points as shown.

This should be the result. Turn the model over the vertical axis.



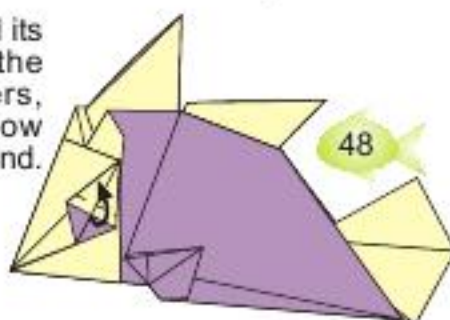
45



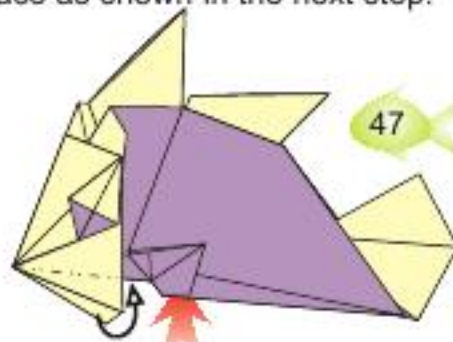
46

Working from the left-hand side, separate one layer and valley fold it to the right, as shown, so the fold-line passes through the dot. At the same time, fold the left-hand flap to the right to form the face as shown in the next step.

Shaping the eye, valley fold its top edge as shown. Fix the paper at the side corners, squashing them in narrow triangular flaps. Repeat behind.

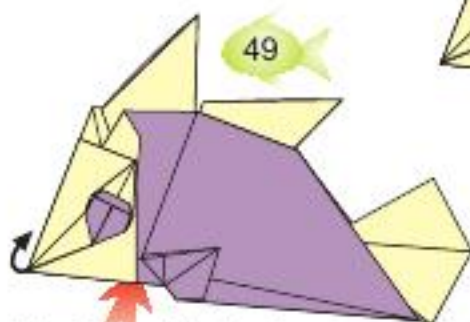


48



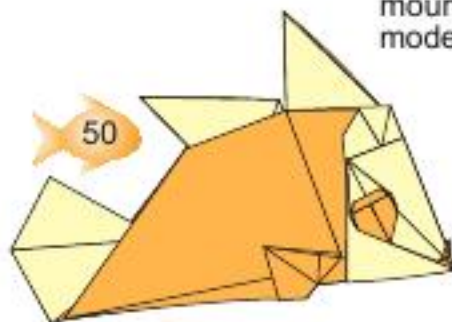
47

Separate the layers at the bottom, and working with the face, mountain fold its edge inside the model, as shown. Repeat behind.



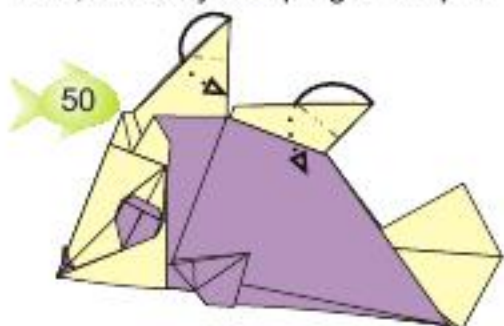
49

Working with the face, separate the layers at the bottom, lift up the bottom corner of the front layer a little, thereby shaping the lips.



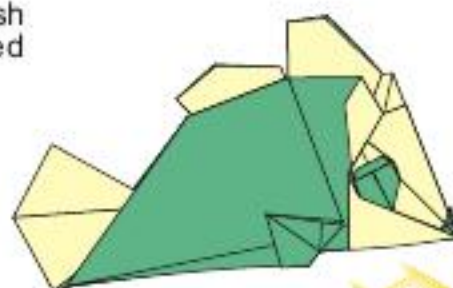
50

Here is the fairy fish with the pointed dorsal fins.



50

Inside reverse fold the tips as shown, thereby shaping the dorsal fins.

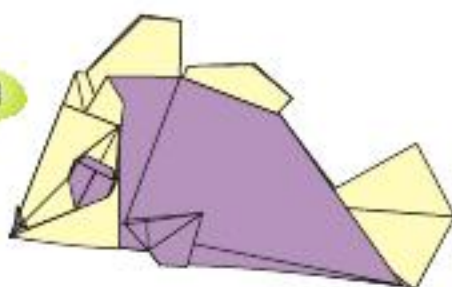


53

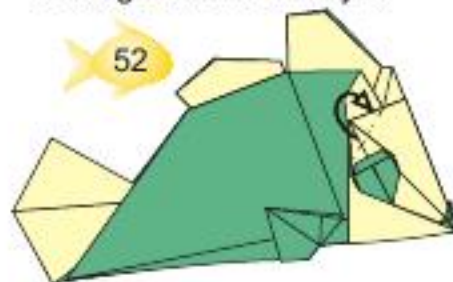
You can lock the side corner above the eye, tucking it under the layer.



51



Here is the completed fairy fish.

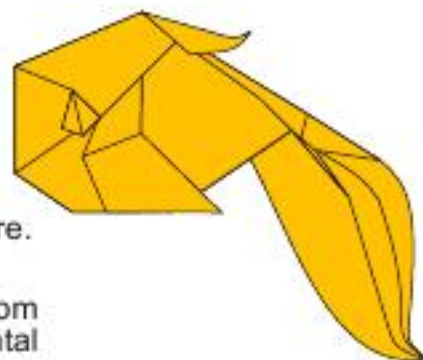


52



Gold Fish

by Katrin Shumakov



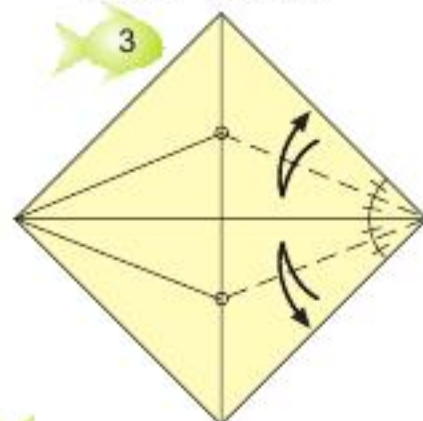
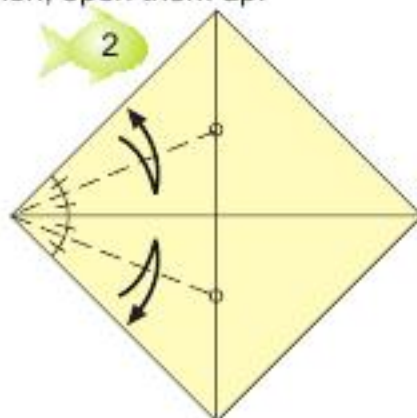
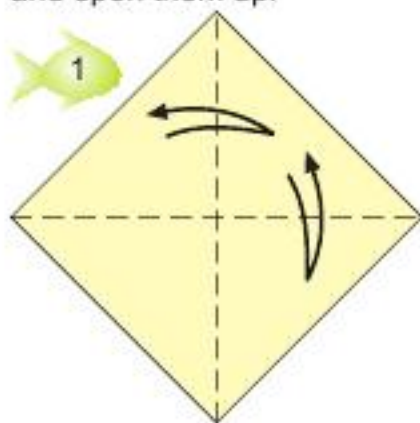
To do the Gold Fish, use an approximately 6-inch (15 cm) square.

If using two-color paper, begin with colored side down.

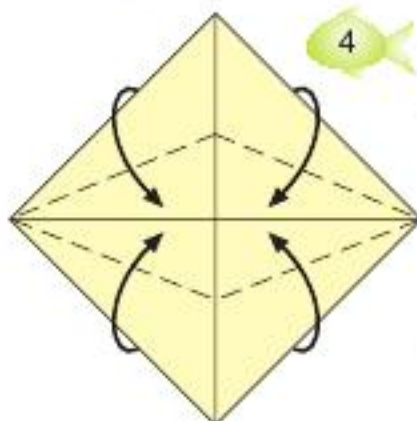
Valley fold the opposite corners together, in turn, to mark the diagonal fold-lines, and open them up.

Bring the left-hand top and bottom sloping edges to meet the horizontal middle fold-line. Crease only as far as the vertical middle fold-line, as shown. Then, open them up.

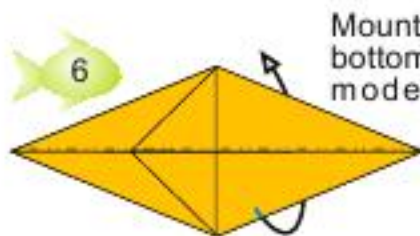
Repeat the same from the right-hand corner.



Valley fold and unfold middle corners as shown.

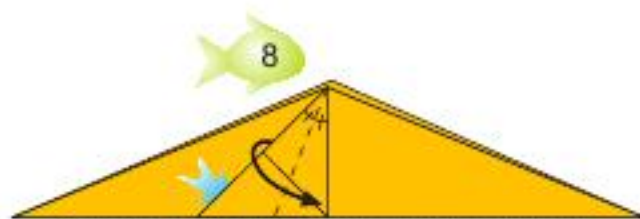


Valley fold the top and bottom edges along the fold-lines made in steps 2 and 3, pinching the top and bottom corners and folding them over to the right as shown in the next step. Press the paper down neatly, thereby completing the shape that, in origami, is called the fish base.



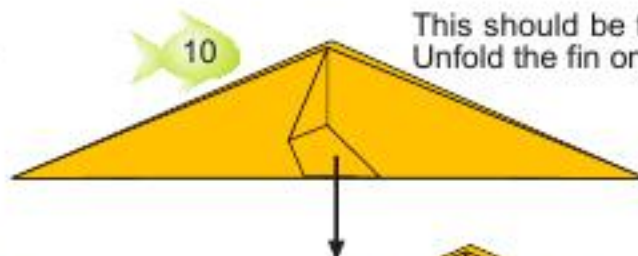
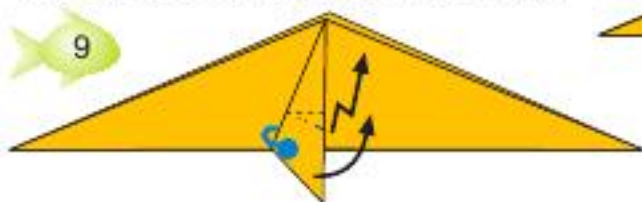
Mountain fold the bottom half of the model behind.

Valley fold the triangular flap in half, as shown. Press it flat and unfold it. Repeat behind.

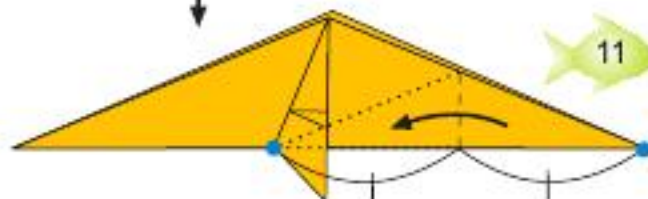


Valley fold the triangular flap over, so its left-hand sloping edge meets the vertical middle line. Repeat behind.

Working with the triangular flap, pinch its left-hand corner and step fold the flap into the position shown in the next step, thereby shaping the fin. Repeat behind.

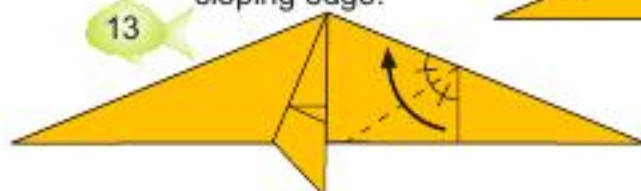


This should be the result. Unfold the fin on the front.



Valley fold the right-hand point over to the left, as shown, so the dots coincide.

Valley fold the right-hand point over, so its vertical fold-line lies on the upper sloping edge.

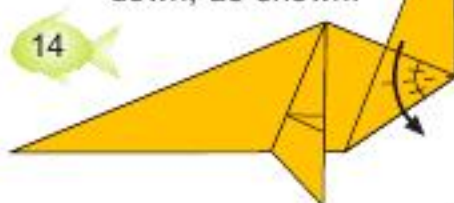


12

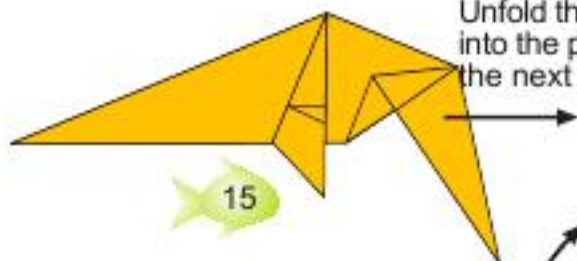


Unfold the flap.

Valley fold the right-hand flap down, as shown.



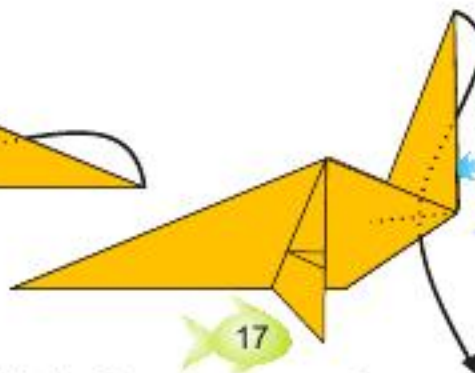
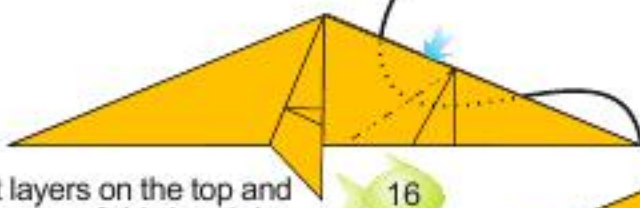
This should be the result. Unfold the right-hand part into the position shown in the next step.



Separate the layers on the right, and valley fold the upper sloping edge, as shown. Press it flat and unfold it. Repeat behind.

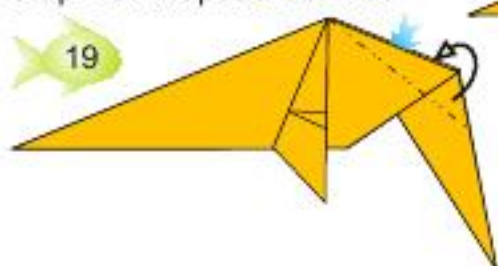


Open out layers on the top and inside reverse fold the right-hand point along the fold-line made in step 13.



Open out layers on the right and inside reverse fold the top point along the fold-line made in step 14.

Mountain fold the upper sloping edge into the model along the fold-line made in step 18. Repeat behind.



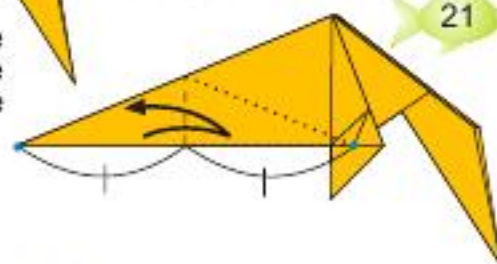
20



Valley fold the middle triangular flap to the right, as if turning the page of a book.

Valley fold the left-hand point over to the right, as shown, so the dots coincide. Press it flat and unfold it.

21



Return the fin into the initial position, pinching its left-hand corner and step folding the flap along the existing fold-lines.

22



Valley fold the middle triangular flap to the left, as if turning the page of a book.

Valley fold the left-hand point over, so its vertical fold-line lies on the upper sloping edge.

23

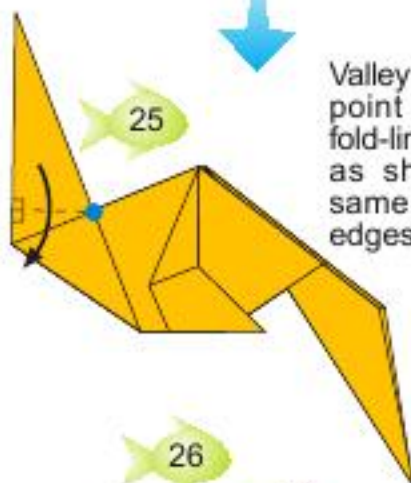


24



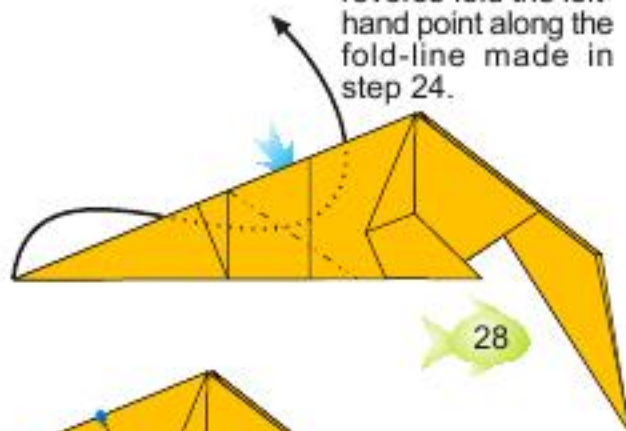
Valley fold the left-hand top point down, so that the fold-line goes over the dot, as shown, and, at the same time, the left-hand edges coincide.

26



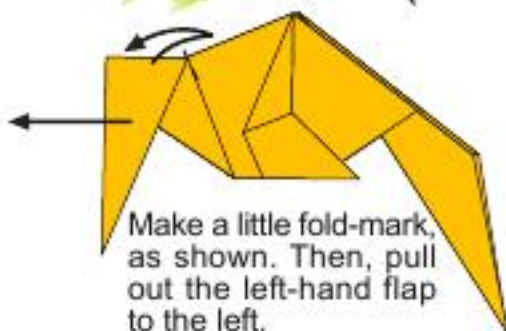
Separate the layers at the top and inside reverse fold the left-hand point along the fold-line made in step 24.

28

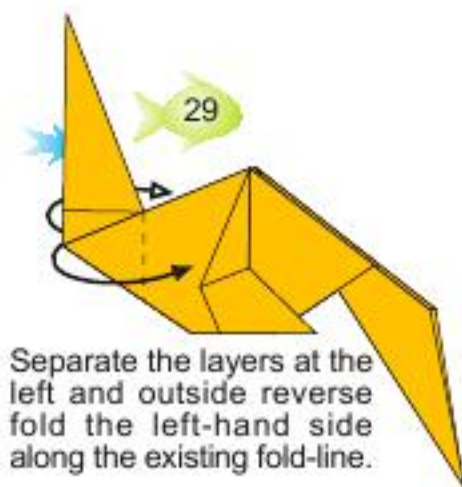


Make a little fold-mark, as shown. Then, pull out the left-hand flap to the left.

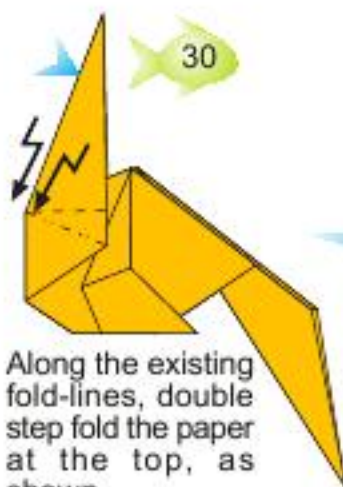
27



Valley fold the left-hand point over to the right, so that the fold-line goes over the dot, as shown, and, at the same time, the bottom edges coincide. Press the fold flat and unfold it.

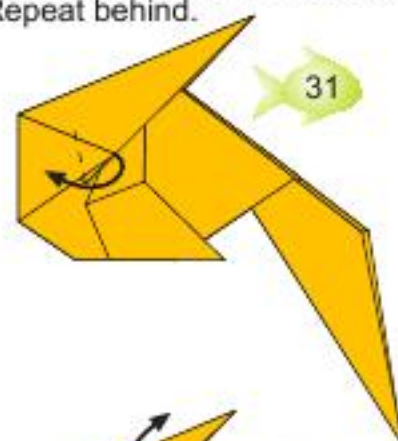


Separate the layers at the left and outside reverse fold the left-hand side along the existing fold-line.



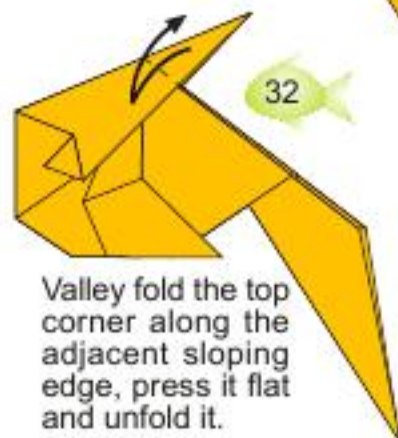
Along the existing fold-lines, double step fold the paper at the top, as shown.

This should be the result. Valley fold the little corner as shown. Repeat behind.

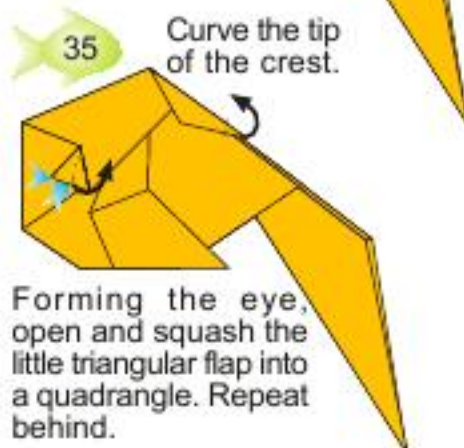
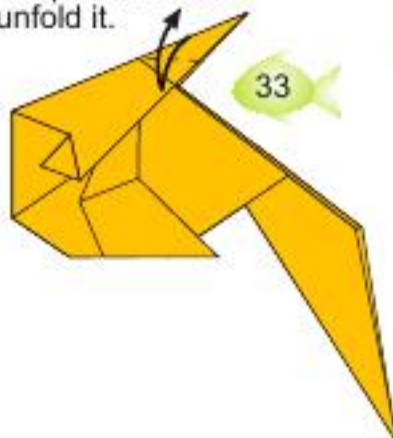
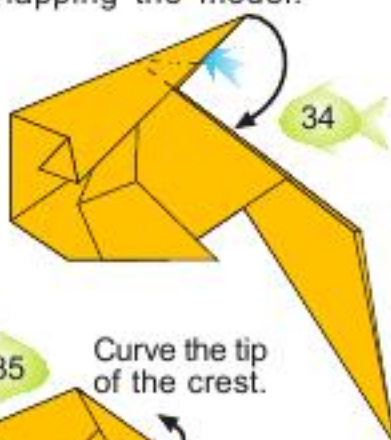


Separate the layers at the top flap and squash it along the existing fold-lines, overlapping the model.

Valley fold the top corner over to meet the fold-line made in step 32. Press it flat and unfold it.

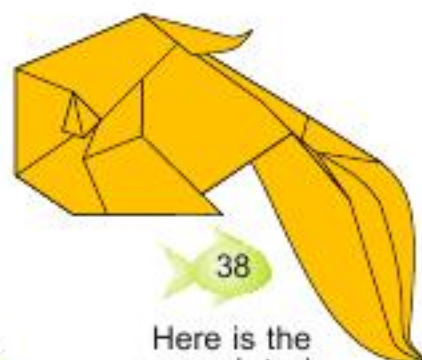


Valley fold the top corner along the adjacent sloping edge, press it flat and unfold it.



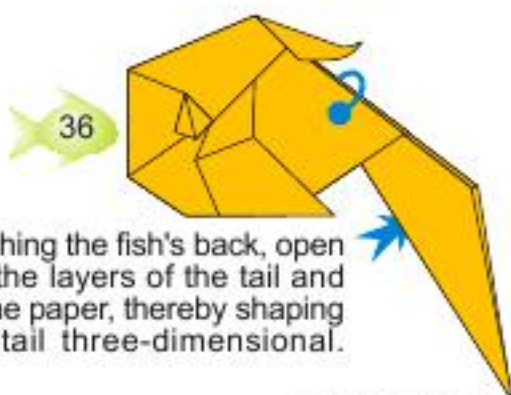
Curve the tip of the crest.

Forming the eye, open and squash the little triangular flap into a quadrangle. Repeat behind.

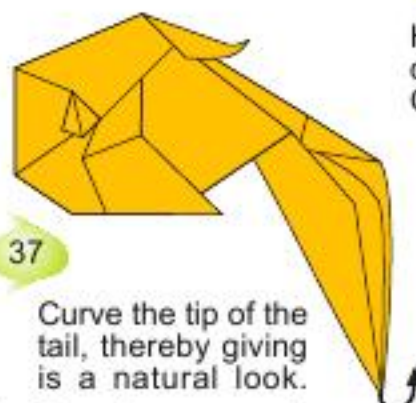


38

Here is the completed Gold Fish.



Pinching the fish's back, open out the layers of the tail and fix the paper, thereby shaping the tail three-dimensional.



Curve the tip of the tail, thereby giving is a natural look.



Sea Horse

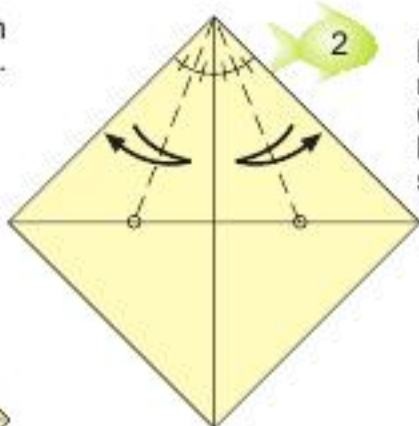
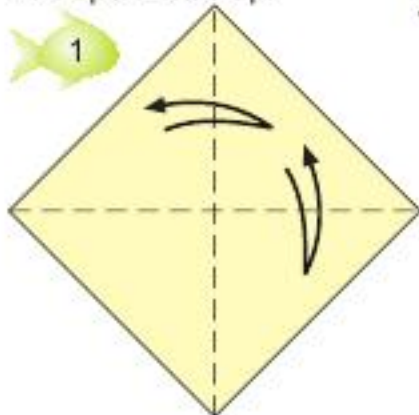
by **Katrin and Yuri Shumakov**

The seahorses belong to the most magnificent and most remarkable creatures of the seas. They are small plated fish with a head that is similar in appearance to a horse's head. They have forward-curved, prehensile tail and swim upright. The color range of sea horses is extensive: they can be white, yellow, red, brown, black, gray, spotted or banded. Species range in size from 1 ½ to 12 inches (4–30 cm) although most fall in the 6-inch (15 cm) category.

Use an approximately 8-inch (20 cm) square of paper. After you've mastered folding this model, try using a smaller square, for example, 6-inch (15 cm) square or so. It's better to use two-color paper.

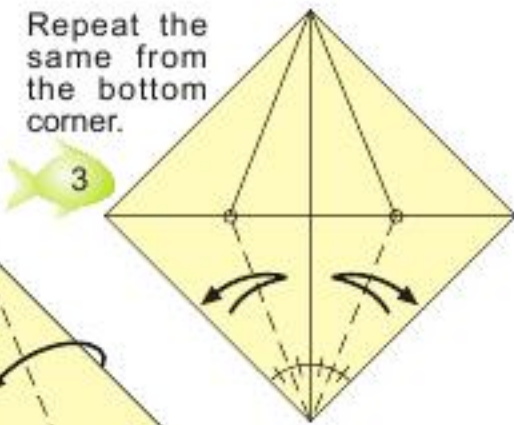
If using two-color paper, begin with colored side down.

Valley fold the opposite corners together, in turn, to mark the diagonal fold-lines, and open them up.

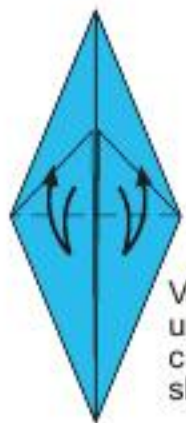
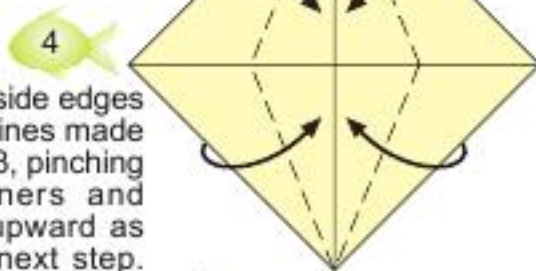


Bring the upper sloping edges to meet the vertical middle fold-line. Crease only as far as the horizontal middle fold-line, as shown. Then, open them up.

Repeat the same from the bottom corner.

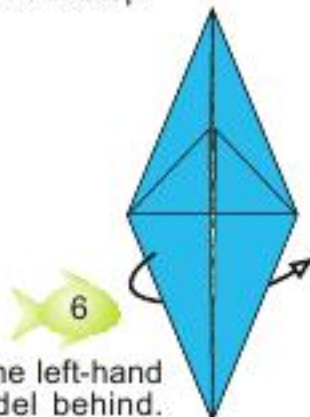


Valley fold the side edges along the fold-lines made in steps 2 and 3, pinching the side corners and folding them upward as shown in the next step.

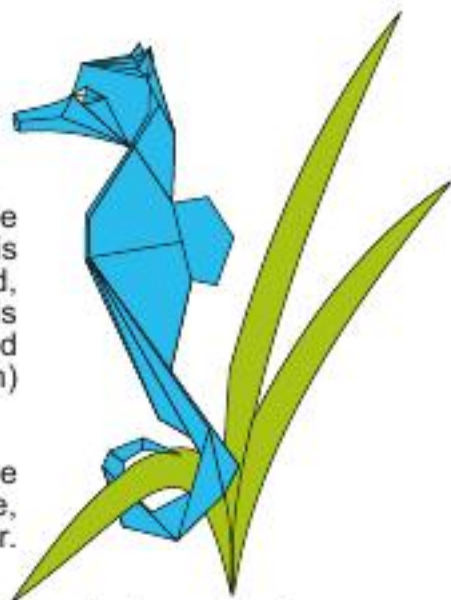
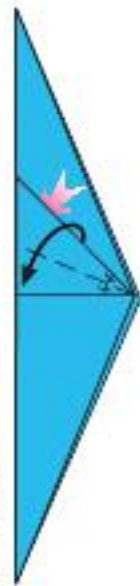


Valley fold and unfold middle corners as shown.

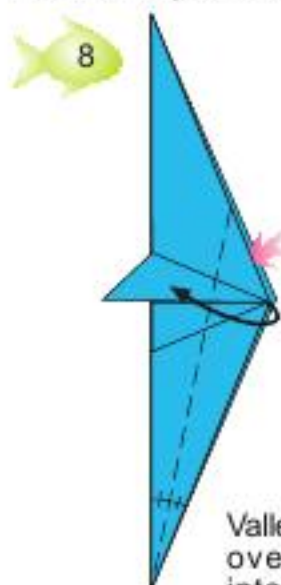
Mountain fold the left-hand half of the model behind.



Valley fold the triangular flap in half, as shown. Repeat behind.



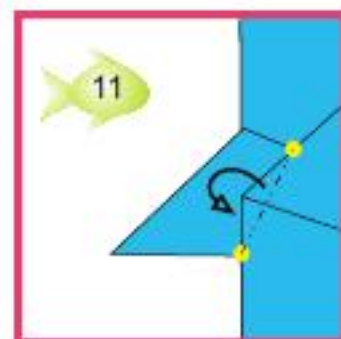
Separate the layers on the right. Valley fold the lower sloping edge over to meet the vertical middle line, as shown.



This should be the result. Repeat step 8 behind.

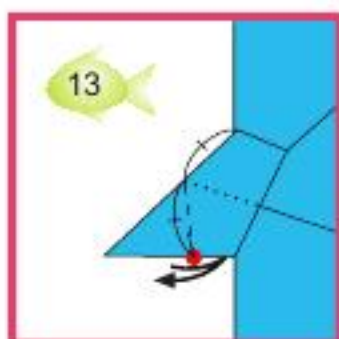
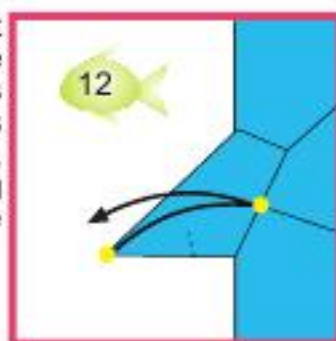


This should be the result. The marked place is shown in the following steps.

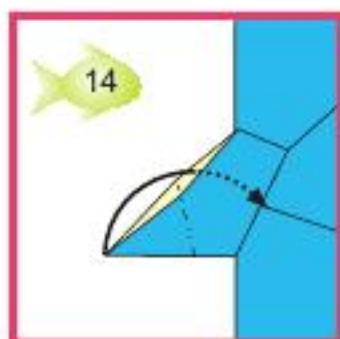


Mountain fold the front layer inside the model, so the fold-line passes through the edges intersections, as shown by the yellow dots.

Valley fold the left-hand point over to meet the line intersection, so the dots coincide. But, do not press the paper completely flat, just press it a little, making the small fold-mark on the bottom edge.

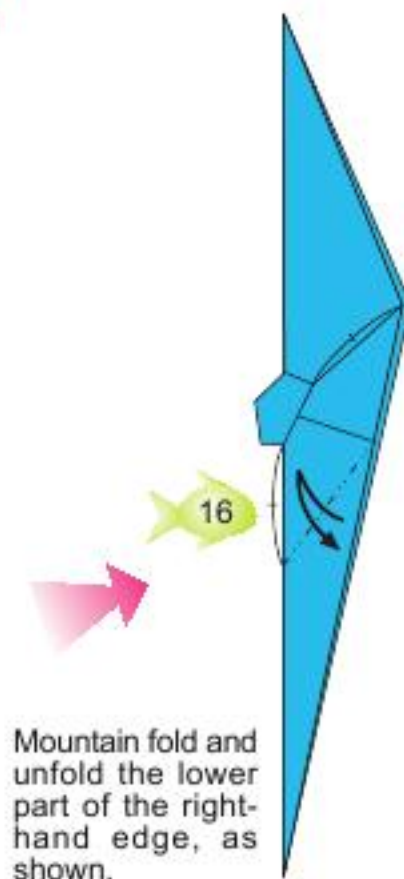
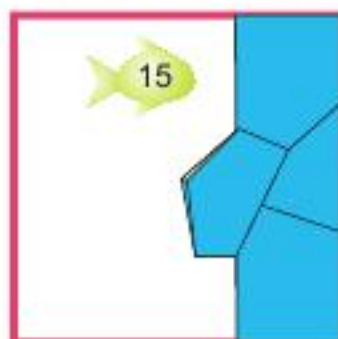


Valley fold and unfold the left-hand point over, so the fold-line starts from the fold-mark made in step 12 and goes up as shown.

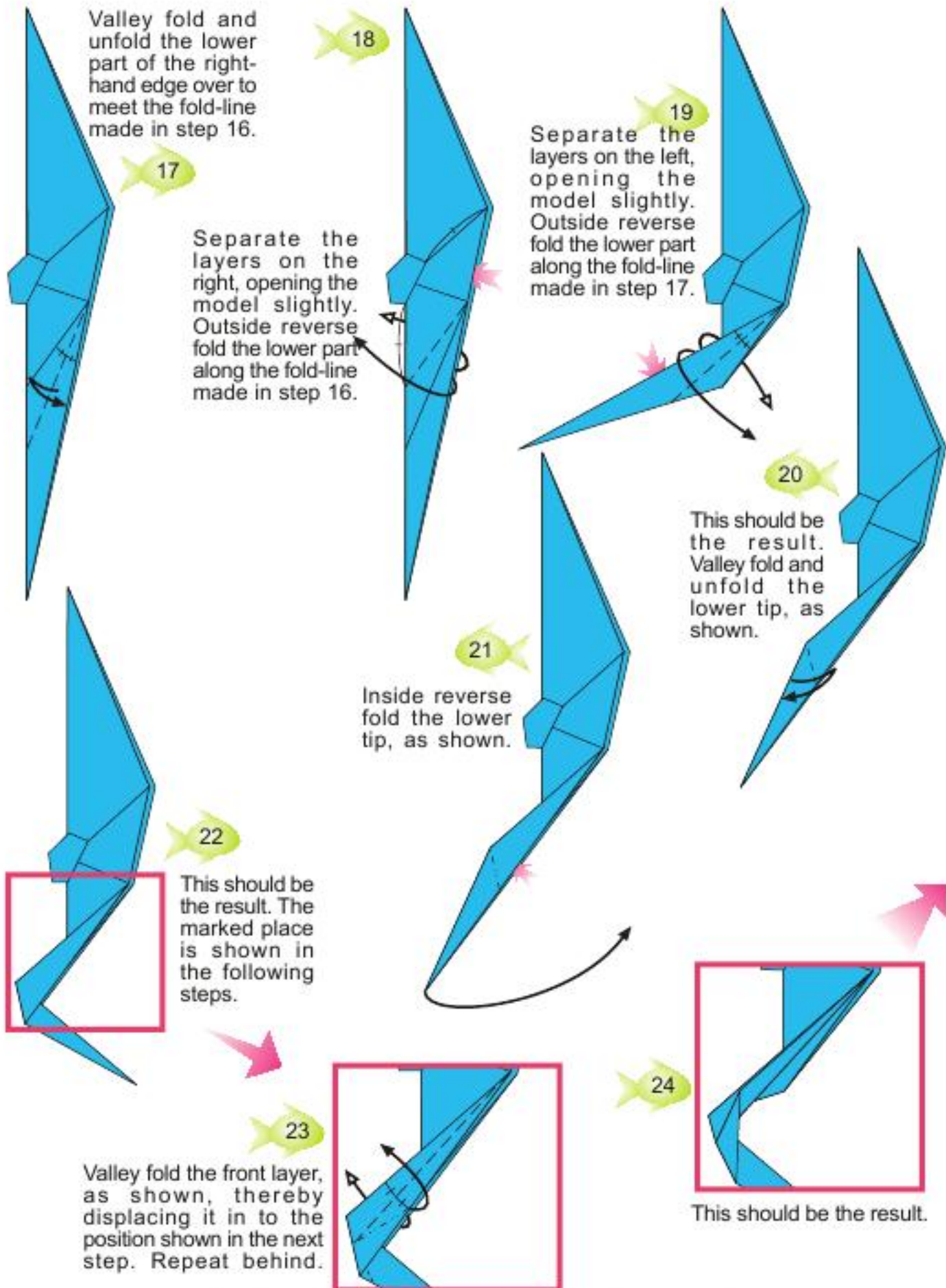


Along the fold-line made in step 13, inside reverse fold the left-hand point between the layers. Repeat steps 11-14 behind.

This should be the result.



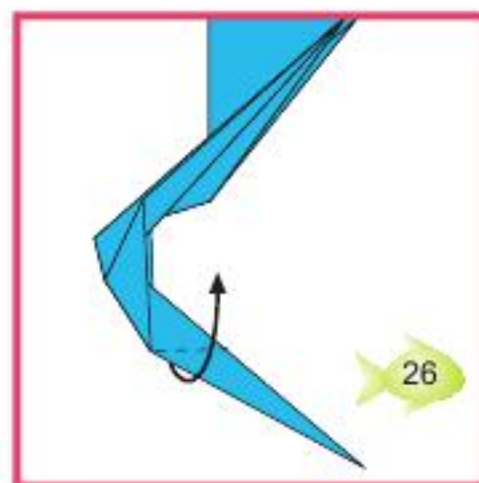
Mountain fold and unfold the lower part of the right-hand edge, as shown.



The marked place is shown in the following steps.

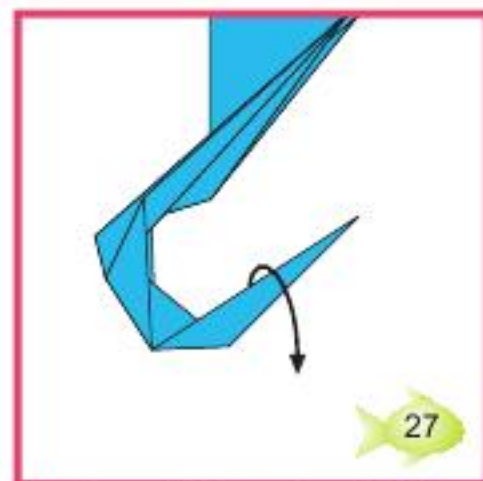


25



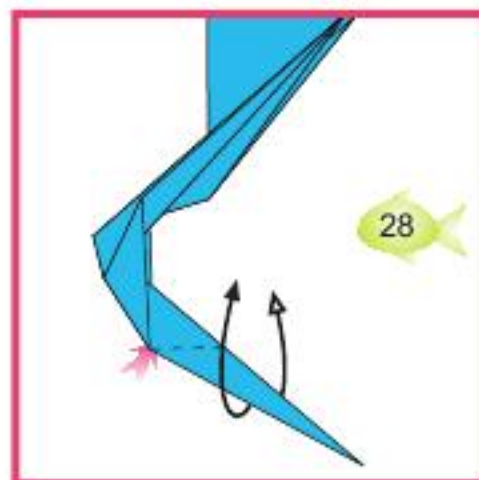
26

Valley fold the lower tip into the position shown in the next step.



27

Press it flat and unfold it.



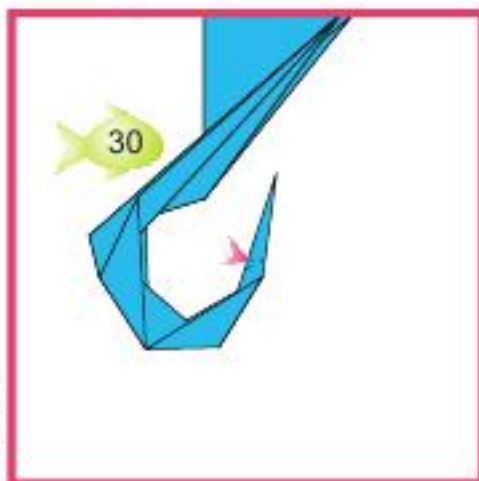
28

Opening the layers slightly, outside reverse fold the lower tip along the fold-line made in step 26.



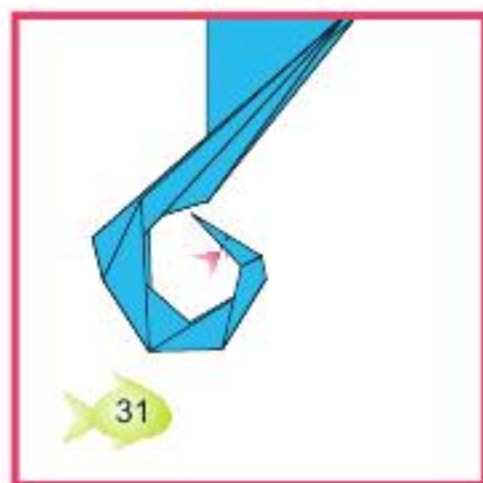
29

Inside reverse fold the tip, as shown.



30

Shape the tip into the position shown in the next step.

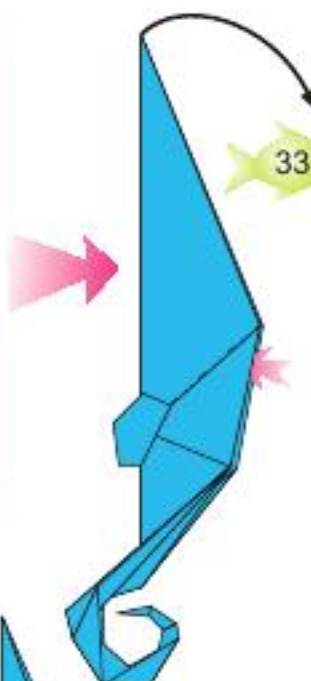


31

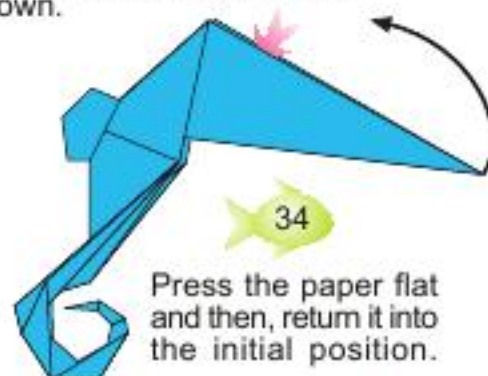
Form the tip as shown, thereby completing the tail.



This should be the result.

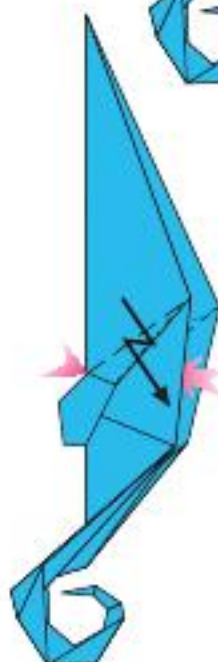


Working with the upper part, separate the layers and inside reverse fold it along the adjacent borders, as shown.



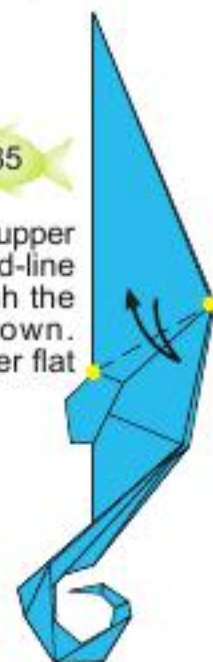
Press the paper flat and then, return it into the initial position.

This should be the result. Valley fold the upper part, so the left-hand sloping edge meets the adjacent border, as shown. Press it flat and unfold it.

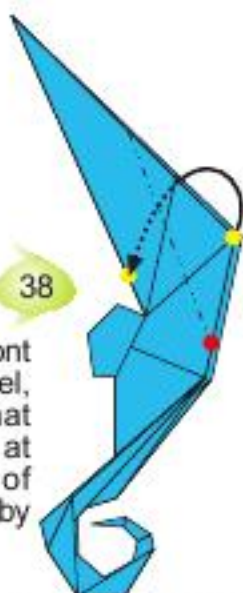


Separate the layers as shown and double step fold the upper part along the fold-lines made in steps 33 and 35.

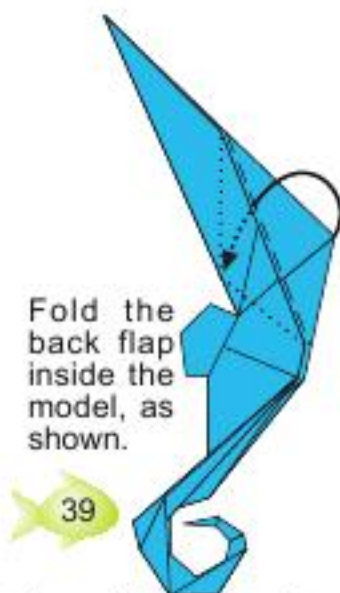
Valley fold the upper part, so the fold-line passes through the dots, as shown. Press the paper flat and unfold it.



Mountain fold the front flap inside the model, as shown. Note that the fold-line starts at the intersection of inner layers, shown by the red dot.



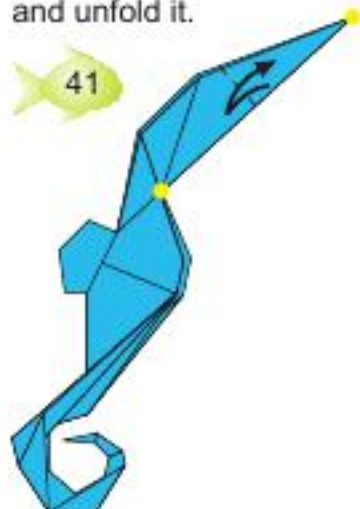
Fold the back flap inside the model, as shown.



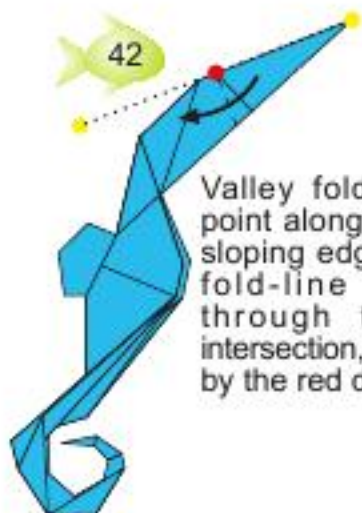
Along the fold-lines made in step 37, form the 'mountain' folds on all the front layers and repeat behind. Then, inside reverse fold the upper part, as shown.



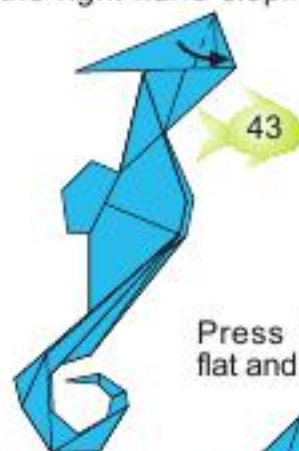
Valley fold the upper part in half, as shown, so the dots coincide. Press it flat and unfold it.



Valley fold the top point along its upper sloping edge, so the fold-line passes through the line intersection, as shown by the red dot.



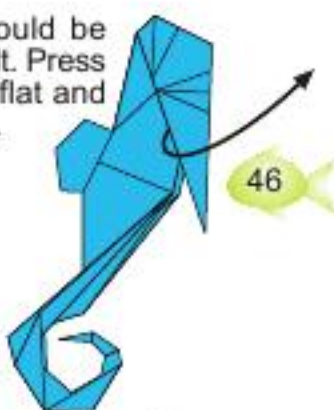
Valley fold the triangular flap, so its upper sloping edge meets the right-hand sloping edge.



Press the fold flat and unfold it.



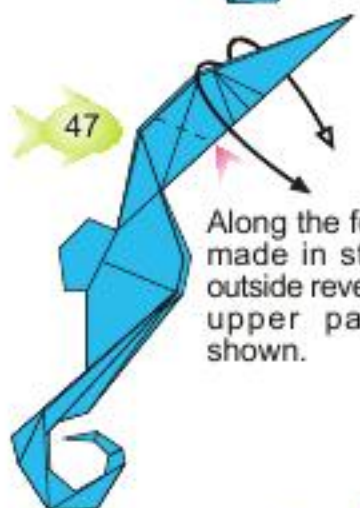
This should be the result. Press the fold flat and unfold it.



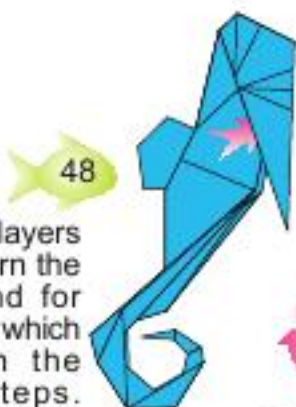
Valley fold the upper part, so the lines intersections shown by the dots coincide.



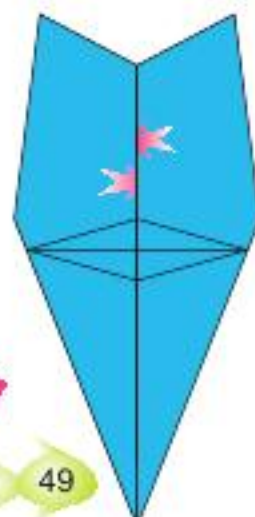
Along the fold-line made in step 45, outside reverse the upper part, as shown.



Separate the layers as shown. Turn the model around for the front view, which is shown in the following steps.



Separate the layers at the middle, as shown.



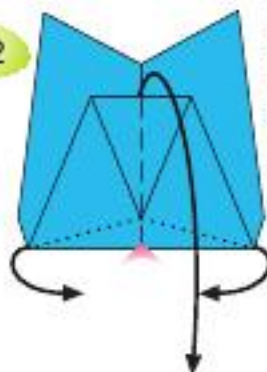
Form the 'valley' and 'mountain' folds along the existing fold-lines, and at the same time valley fold the bottom point upward, as shown.



Valley fold the top point downward, so the dots coincide.

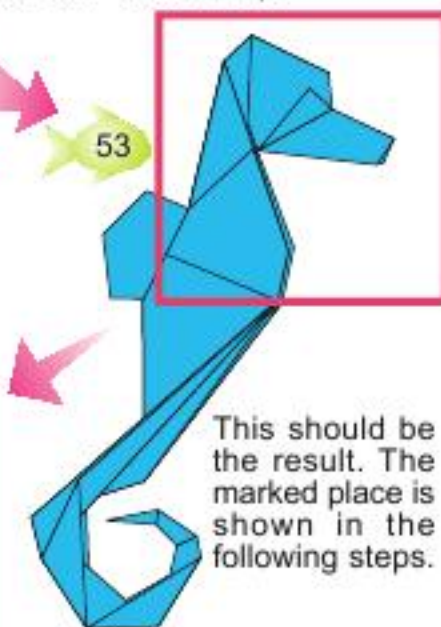


52



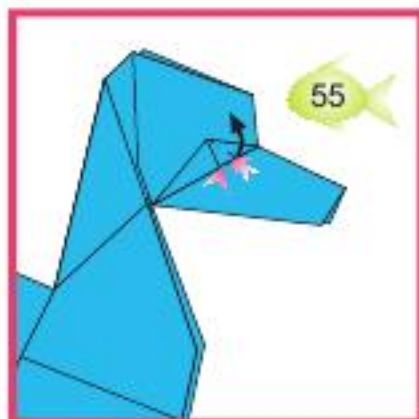
Press on the bottom midpoint and reduce the side edges, lowering the front flap, thereby shaping the future head of the sea horse into the position shown in the next step.

53

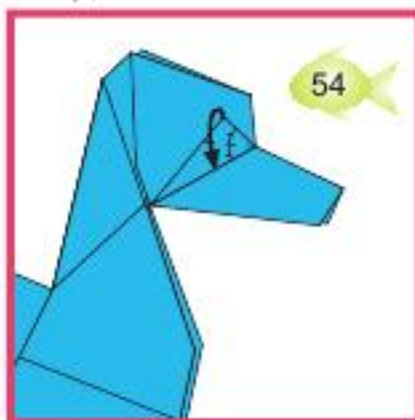


This should be the result. The marked place is shown in the following steps.

Open out the small triangular flap, as shown and squash it into the position shown in the next step.

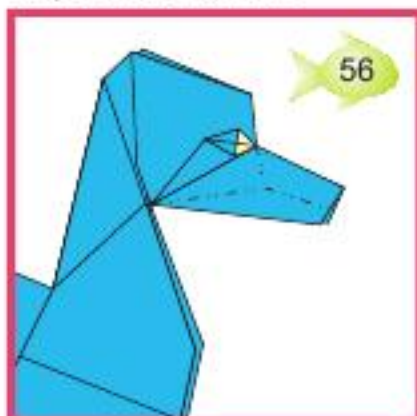


55



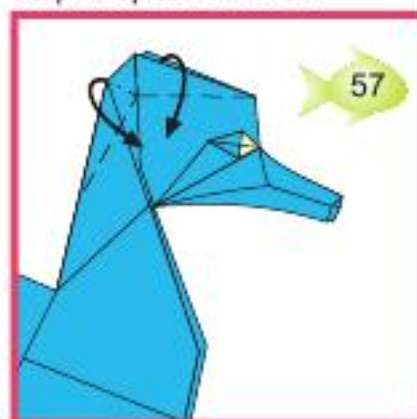
54

The eye is ready. Repeat steps 54-55 behind.



56

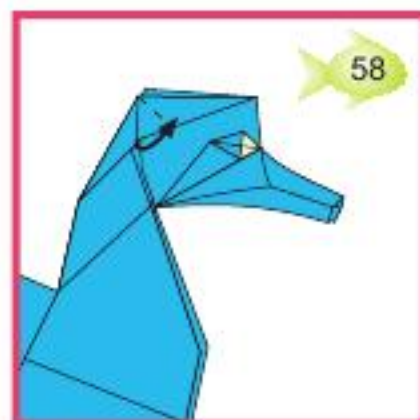
Form the folds on the left-hand and top sloping edges into the position shown in the next step. Repeat behind.



57

Make the soft 'mountain' folds on front and back, thereby forming the snout of the seahorse.

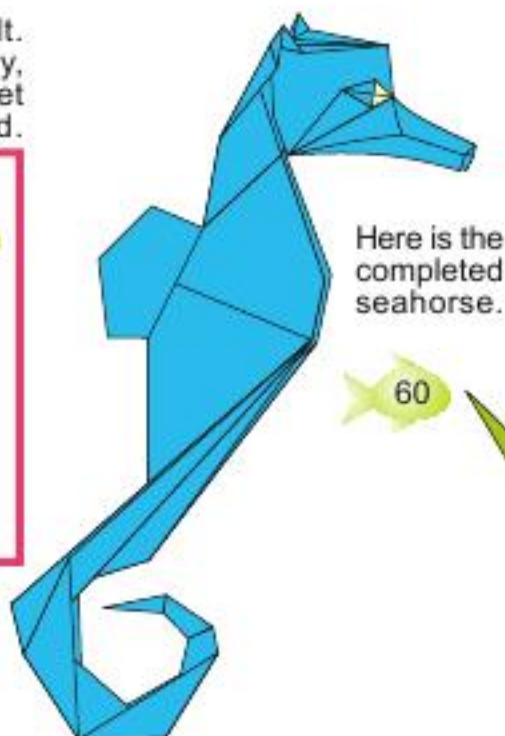
The tube-shaped snout is ready.



58

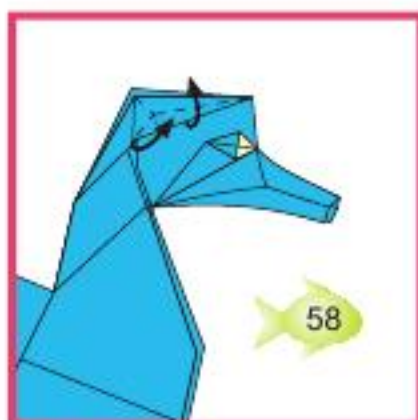
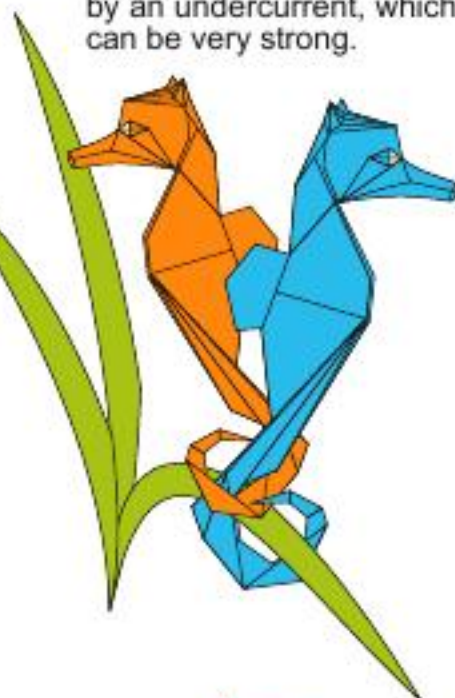
Valley fold the corner of the triangular flap into the position shown in the next step. Repeat behind.

This should be the result. Open out the flaps slightly, thereby shaping the coronet on the seahorse's head.



Here is the completed seahorse.

The seahorses wrap their tails around coral, sea grass or any other convenient object on the ocean floor, so they are not swept away by an undercurrent, which can be very strong.



Advanced Head

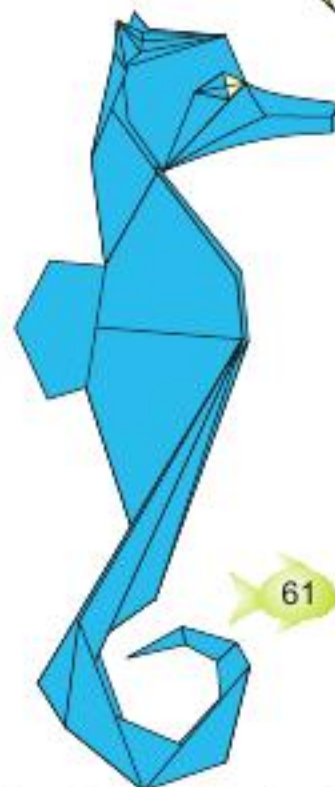
To make the advanced head, carefully unfold the upper creases of the seahorse's head into the shown position.

Shape the small triangular flap into the position shown in the next step. Repeat behind.



This should be the result. Unfold the folds made in steps 57-58.

Separate the layers and carefully form the three-dimensional 'ears' along the existing fold-lines, thereby shaping the coronet on the seahorse's head.



Here is the completed seahorse with the advanced head.



Sea-Grass

by Katrin Shumakov

The blade of grass is folded from a strip of paper, for instance, 1 ½ x 8 ½ inches (4x21 cm) or longer. It's better to use paper, colored on both sides, for example, colored copy paper. If using two-color paper, begin with colored side down.

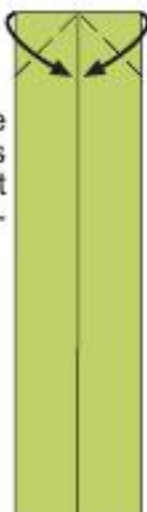
You will need the ready short flower holder to arrange a sea-grass bush for your origami-marine environment.



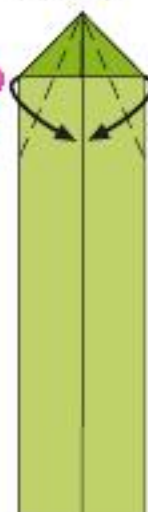
Valley fold and unfold the strip in half.



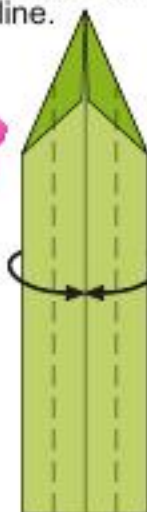
Valley fold the top corners down to meet the middle fold-line.



Valley fold the upper sloping edges over, so they lie along the middle fold-line.



Valley fold the side edges to the middle fold-line.



Here is the completed blade of grass.



Remove the stick and loosen the paper, so now the blade of grass looks naturally.

Start at the top rolling tightly on a thin cylindrical object, such as a plastic knitting-needle, thereby curving the blade of grass.



Pinch the 'mountain' fold at the bottom.



This should be the result. Turn the model over.



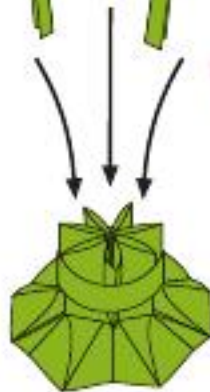
Assembly

You will need the short flower holder and a few blades of Sea-Grass.



Fold the short flower holder according the diagrams presented on the next article. You can use an 11 x 5 ½ inches (30x15 cm) rectangle for the holder, and an 8 ½ x 2 ½ inches (21x7 cm) rectangle for the ring. Or if you've mastered folding this holder, try using smaller sizes of paper: an 8 ½ x 4 ¼ inches (21x10.5 cm) rectangle for the holder, and a 5 ½ x 1 ¾ inches (15x5 cm) rectangle for the ring.

Slightly open out the layers of each section of the flower holder, thereby releasing some space for stems. Insert as much blades of grass as you need for your sea-grass cluster.

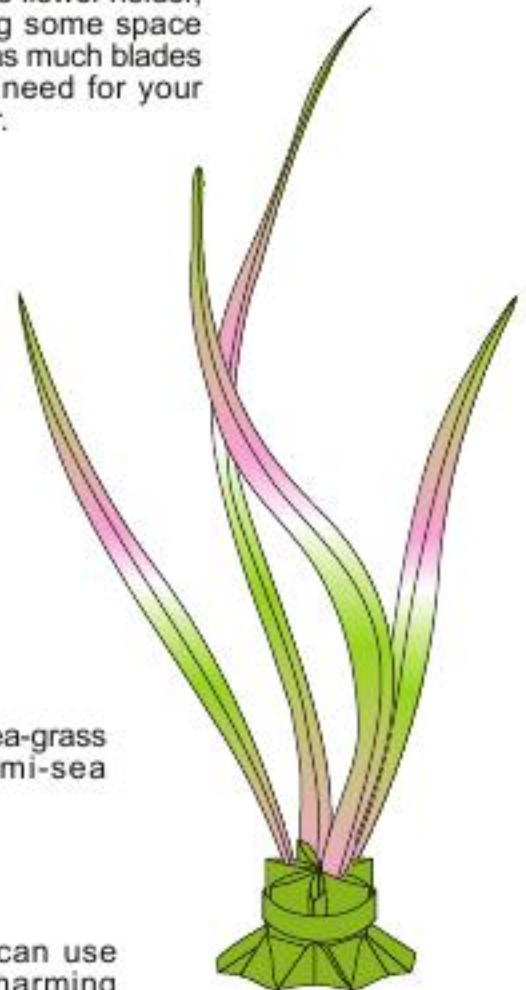
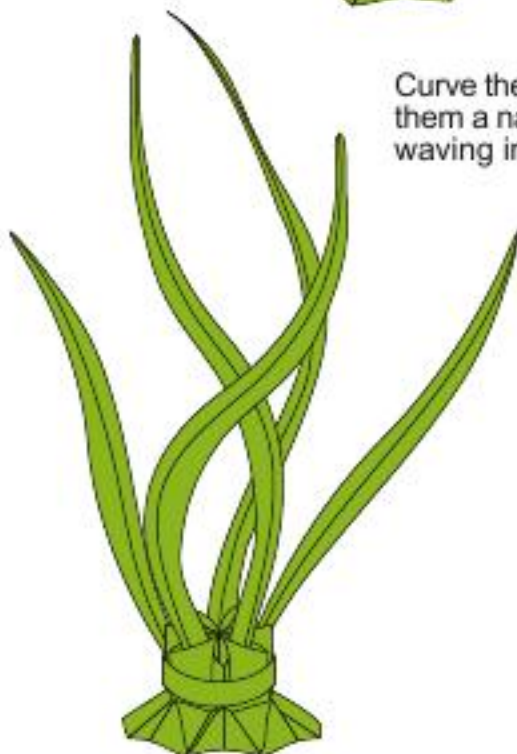


Curve the blades of grass to give them a natural look as if they are waving in water.



Here is the completed sea-grass bush for your origami-sea surroundings.

Don't forget that you can use fancy paper to get charming colorings of your sea-grass.

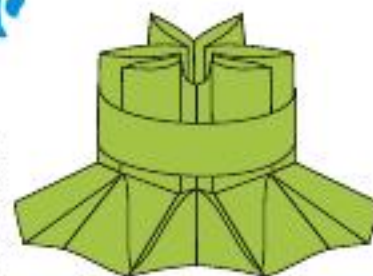




Short Flower Holder

by Katrin Shumakov

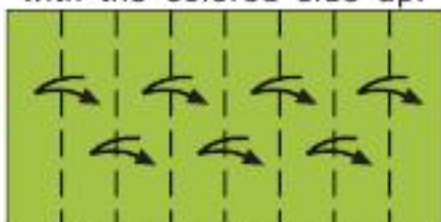
The holder will be useful for keeping the plant stalks and branches in a vertical position and in a fixed order. For the holder, use a rectangle of paper in the proportions of 1:2. The diameter of the finished holder will be about one fourth of the long side of the original rectangle. Also, you will need a strip of paper to make a ring, which will lock the holder's top. For the ring, use a rectangle in the proportions of 1:3, the long side of which is about 2/3 of the long side of the original rectangle of the holder.



So, for example, you can use 'Letter' or 'A4' format paper to receive the necessary rectangles. In this case, for 3-inch (8-cm) diameter of the finished holder, use a 11 x 5 1/2 inches (30x15 cm) rectangle for the holder, and an 8 1/2 x 2 1/2 inches (21x7 cm) rectangle for the ring. After you've mastered folding this holder, try using smaller sizes of paper. For the holder with 2 1/4-inch (6-cm) diameter, use an 8 1/2 x 4 1/4 inches (21x10.5 cm) rectangle for the holder, and a 5 1/2 x 1 3/4 inches (15x5 cm) rectangle for the ring.

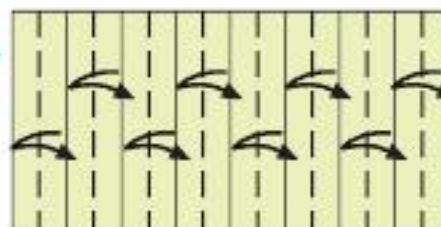
If using two-color paper, begin with the colored side up.

1



Divide the rectangle into 8 equal vertical sections by valley folding. Press the folds flat and unfold them. Then, turn the paper over.

2



This time, divide each vertical section in half by valley folding.

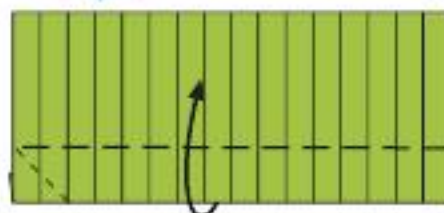
3

4



Working from the bottom left-hand corner, make the diagonal fold-mark in the first section. Then, valley fold the bottom edge up so that the fold-line passes over the top of the diagonal fold-mark, as shown.

5



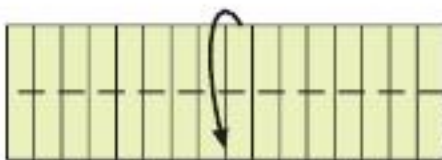
This should be the result. Turn the paper over.

Working from the bottom left-hand corner, make the diagonal fold-mark in the first two sections. Then, valley fold the bottom edge up so that the fold-line passes over the top of the diagonal fold-mark, as shown.

6



This should be the result. Turn the paper over.



Valley fold the top edge to meet the bottom edge.

7

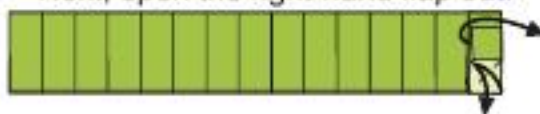
Valley fold the first section of the right-hand edge to the left along the existing fold-line.

8



9

Valley fold the bottom right-hand corner over to meet the adjacent edge. Press it flat and unfold it. Next, open the right-hand flap out.



Repeat steps 8 and 9 for the following double section as well as for each of the next ones.

10



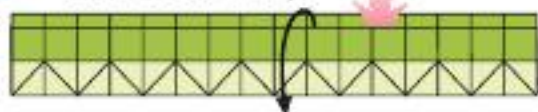
11

This should be the result. Turn the paper over.



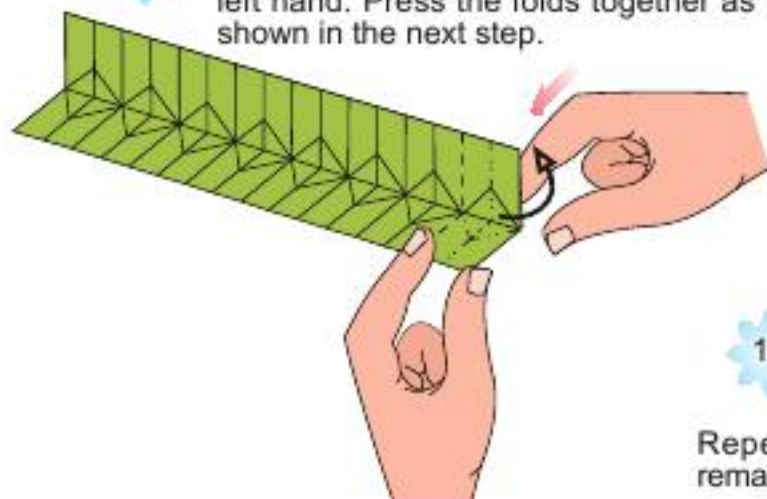
12

Open out the top flap, as shown in the next step.



13

Carefully form the 'mountain' and 'valley' creases. Mountain fold the first vertical flap with your right hand, at the same time, pinch the 'mountain' fold of the first horizontal double section with your left hand. Press the folds together as shown in the next step.



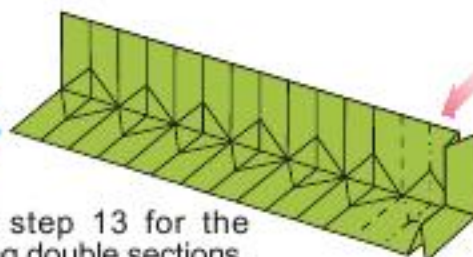
15



This should be the result. Bring the sides around and together, as shown.

14

Repeat step 13 for the remaining double sections.





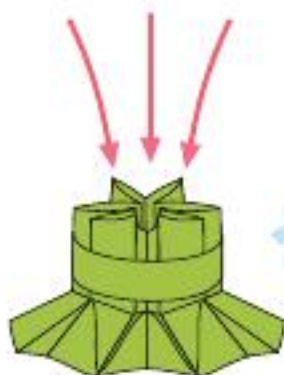
16
Move the left- and right-hand sides closer. Insert the two left-hand sections inside the right-hand side.



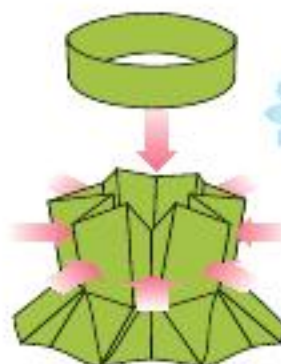
17
Move the upper layers of the right-hand side down into the creases of the left-hand side as far as they will go, combining the two sections of the lower left-hand side with the two right-hand sections.



20
Here is the completed short flower holder.



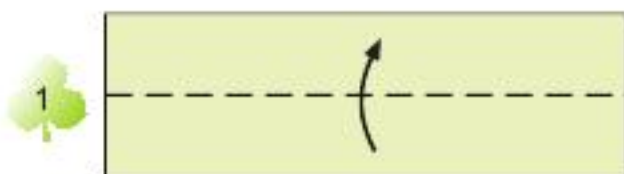
19
This should be the result. Open out the layers of each section of the flower holder slightly, thereby releasing some space for stems.



18
Compress the middle and slip the ring (see its diagram below) on to the compressed middle section, thereby locking it.

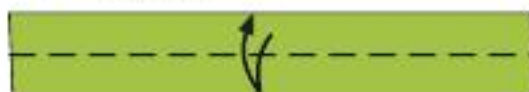
Ring

Take a strip of paper, long enough to fit around the compressed middle section of the holder, plus a little more.



1
Valley fold the paper in half from bottom to top. Press the paper flat.

2
Valley fold the paper in half from bottom to top. Press it flat and unfold it.



Here is the completed ring.



5
Mountain fold the top edge of the ring, thereby locking the model.



3
Bring the side ends together and insert the left-hand end inside the right-hand one, thereby shaping the paper into a circle of the necessary size.



Red Finger Sea Fan

by **Katrin Shumakov**

Sea Fans, more specifically called gorgonians, are the branching corals that form finger or flat fan looking shapes. Gorgonians are oriented at right angles to prevailing water currents.

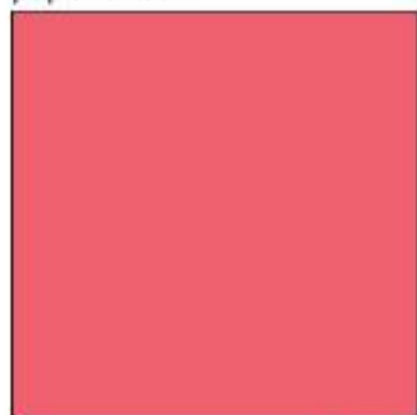
The Red Finger Gorgonian is also referred to as Red Tree Gorgonian, or Colorful Sea Rod. An attractive branching tree-like coral, it basically is presented in two color variations being bright orange-yellow to red, or deep red to purple.

The paper variation of Red Finger Sea Fan will be a gorgeous addition to your origami sea life scene.

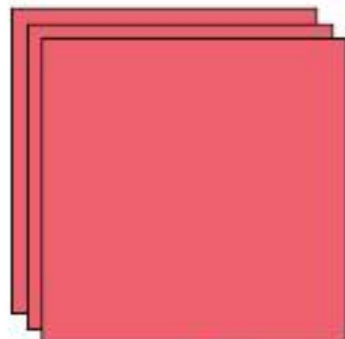
Paper Preparation

The sea fan consists of additional tubular stalks and one base tubular stalk. It's better to use paper, colored on both sides, for example, regular color copy paper, which is strong, keeps its form well and doesn't lose its color on a crease.

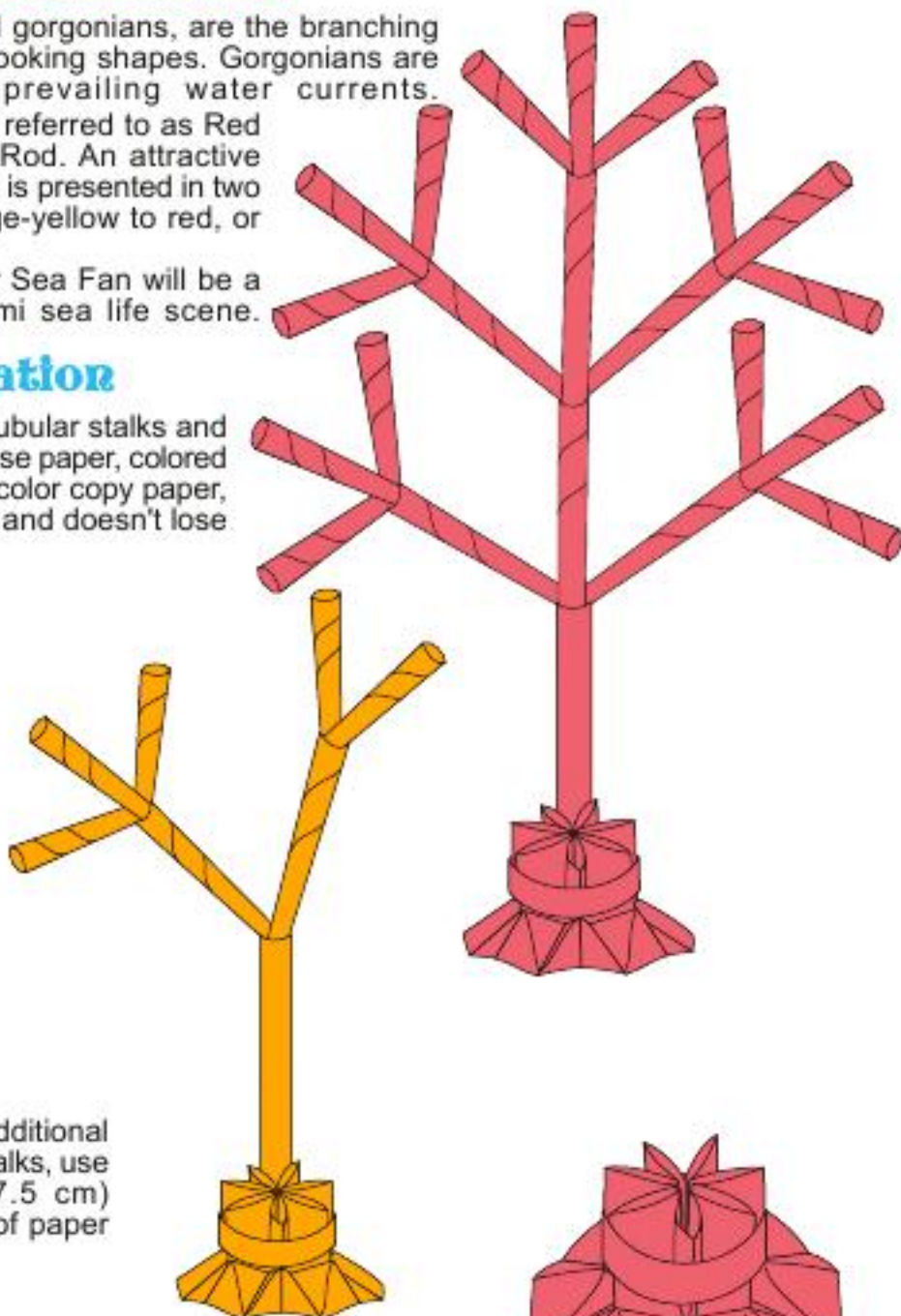
For the base tubular stalk, use a 4-inch (10 cm) square of paper or so.



For the additional tubular stalks, use 3-inch (7.5 cm) squares of paper or so.



For the final tubular stalks, use 2-inch (5 cm) squares of paper or so.



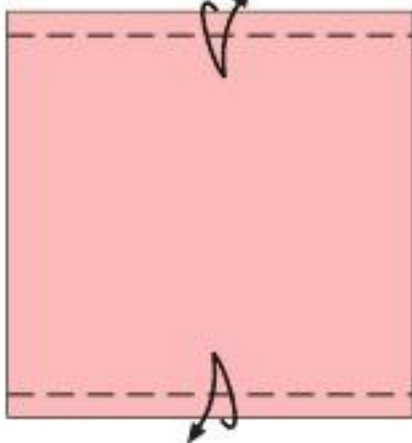
You will need the short flower holder for your sea fan.

The diagrams for folding the short flower holder are presented in the article 'Short Flower Holder'. You can use an 11 x 5 1/2 inches (30x15 cm) rectangle for the holder, and an 8 1/2 x 2 1/2 inches (21x7 cm) rectangle for the ring.

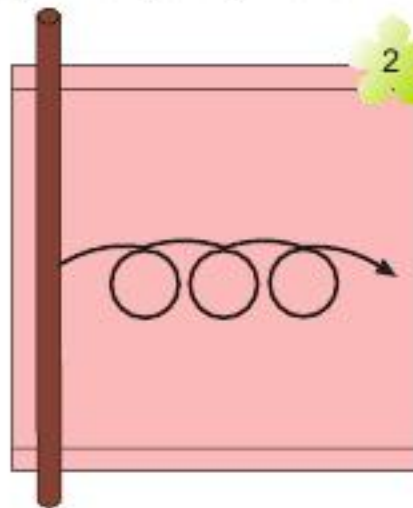
Base Tubular Stalk

This is the tubular stalk with the closed ends. It's good to use for a base stalk of a branch.
Use a square of paper, approximately 4-inch (10 cm) in size.

Valley fold the top and bottom edges over, as shown. Press them flat and unfold them.



1

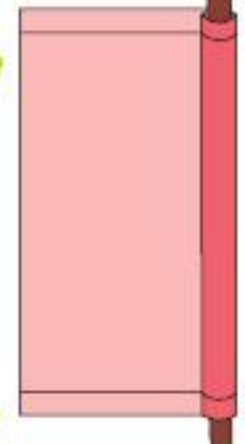


2

Start at one side rolling tightly on a thin cylindrical object, such as a plastic knitting-needle.

Continue rolling the entire paper, trying to maintain the tightest possible roll.

3



Here is the completed base tubular stalk.

This should be the result.

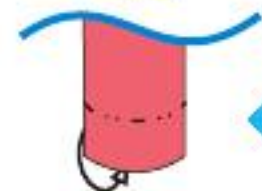
7



6



5

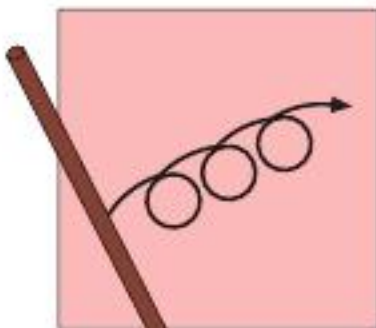


4

Unroll the paper and start to roll it from the outside edge, so that this time, this edge will be inside the tube instead of outside. Remove the cylindrical object.

Additional Tubular Stalk

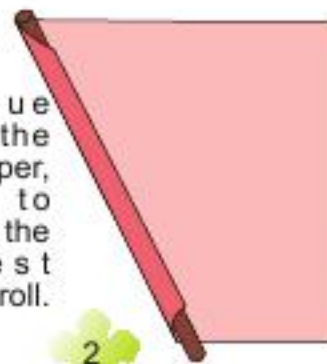
This is a stalk for the formation of branches. Use 3-inch (7.5 cm) squares of paper or so for the additional tubular stalks. And fold the final tubular stalks in the same way, using 2-inch (5 cm) squares of paper or so.



1

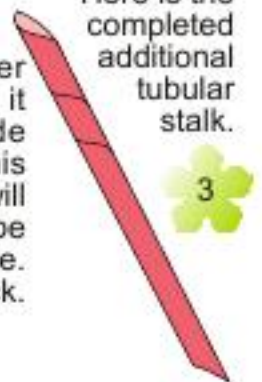
Start at one corner, rolling tightly on a thin cylindrical object.

Continue rolling the entire paper, trying to maintain the tightest possible roll.



2

Unroll the paper and start to roll it from the outside edge, so that this time, this edge will be inside the tube instead of outside. Remove the stick.

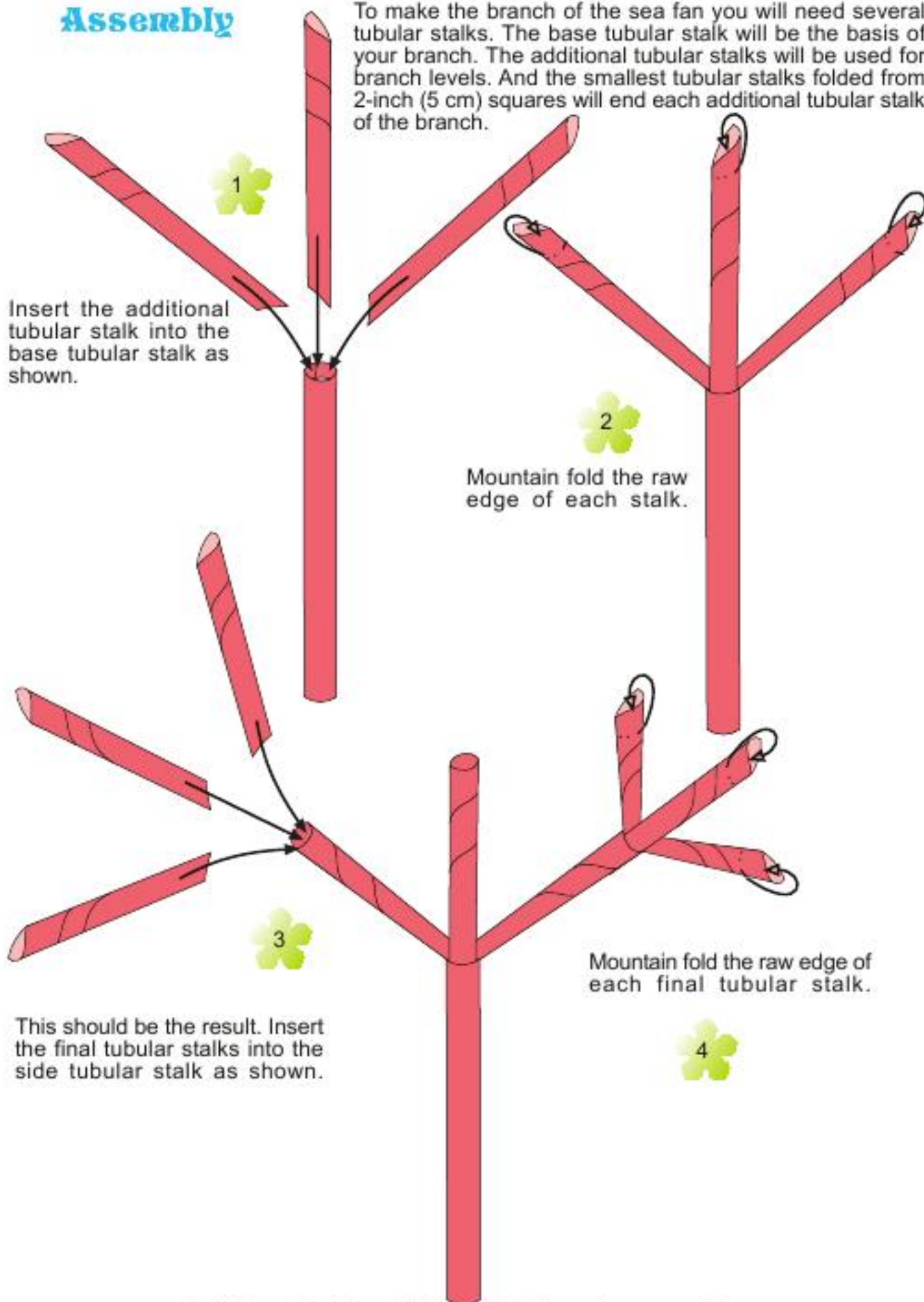


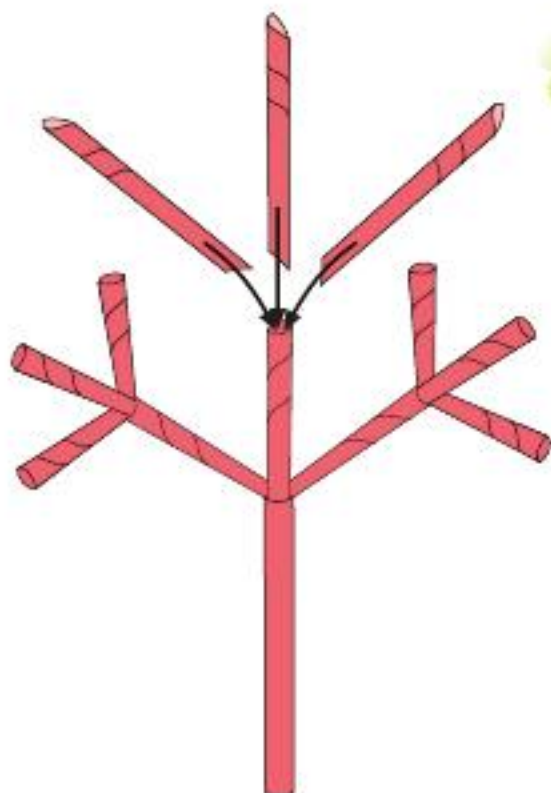
3

Here is the completed additional tubular stalk.

Assembly

To make the branch of the sea fan you will need several tubular stalks. The base tubular stalk will be the basis of your branch. The additional tubular stalks will be used for branch levels. And the smallest tubular stalks folded from 2-inch (5 cm) squares will end each additional tubular stalk of the branch.

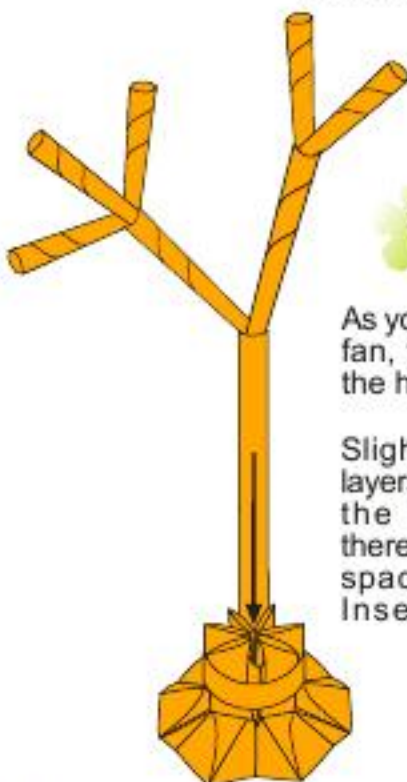




5

Add as many levels of stalks as you'd like for your sea fan branch, lengthening each section with an additional tubular stalk.

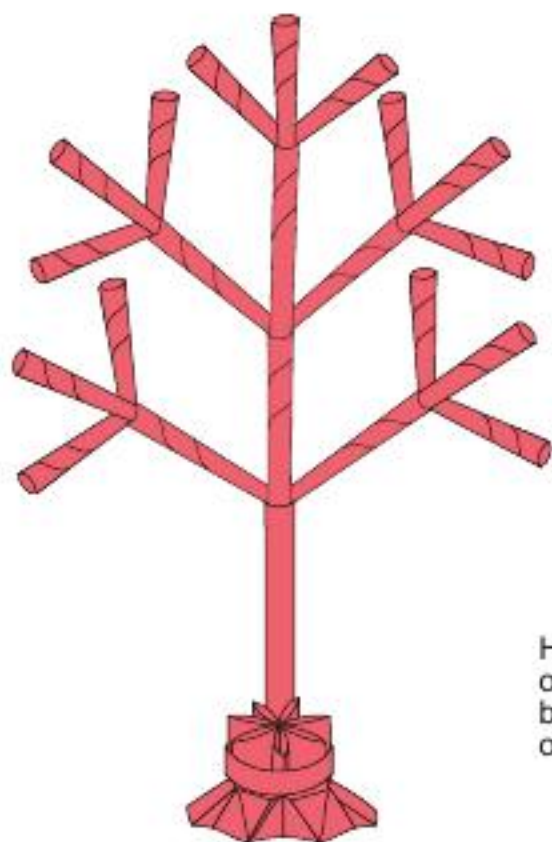
Finish each additional tubular stalk of your sea fan with small final tubular stalks.



6

As you completed your sea fan, you can insert it into the holder.

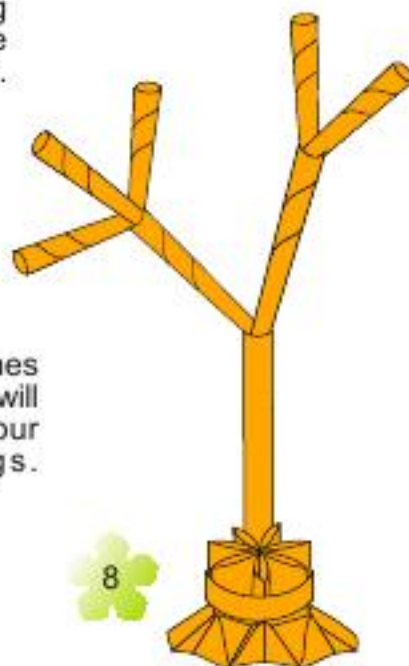
Slightly open out the layers of each section of the flower holder, thereby releasing some space for the stem. Insert the branch.



7

Using this tubular branching technique, you can make different sea fan designs.

Here are the completed branches of the Red Finger Sea Fan that will be a wonderful addition to your origami-sea surroundings.



8



Serrated Leaf Branch

by **Katrin Shumakov**

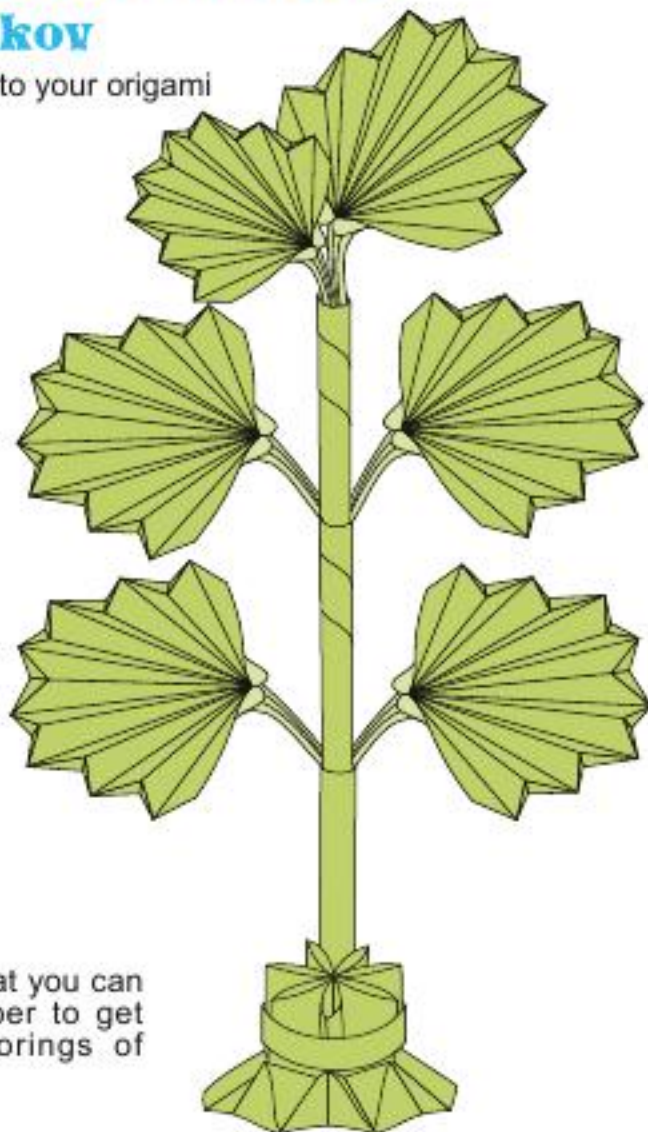
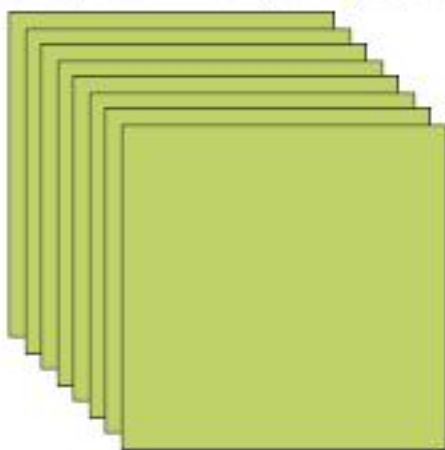
The Serrated Leaf Branches will be a good addition to your origami sea life scene.

Paper Preparation

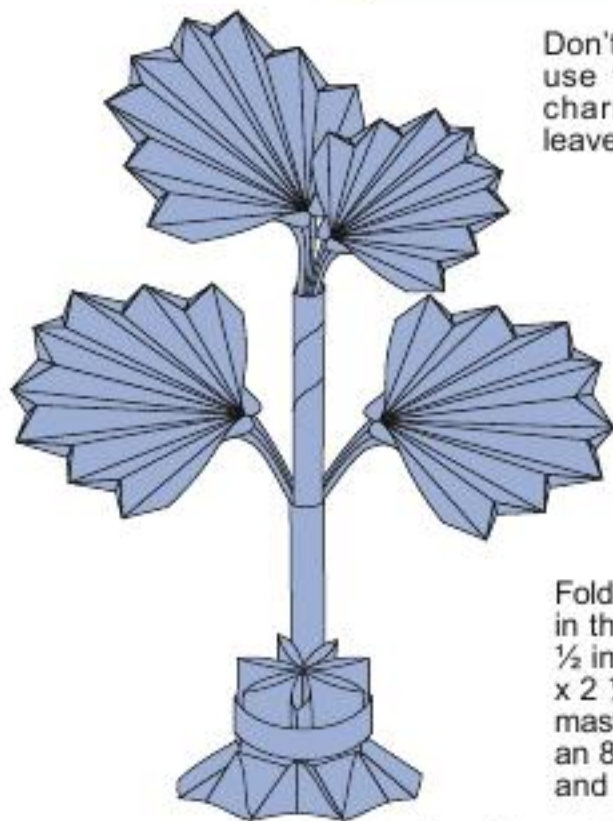
The branch consists of leaves and tubular stalks. It's better to use paper, colored on both sides, for example, regular color copy paper with the printed pattern on it.

For the leaf, use a 4-inch (10 cm) square of paper.

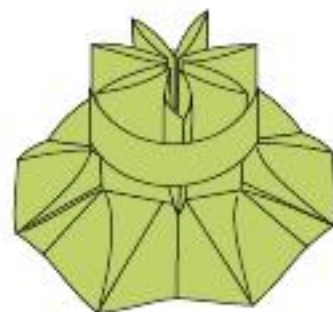
For the tubular stalks, use 4-inch (10 cm) squares of paper or so.



Don't forget that you can use fancy paper to get charming colorings of leaves.



You will need the short flower holder for your branch.

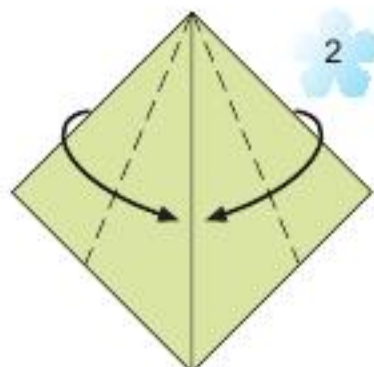
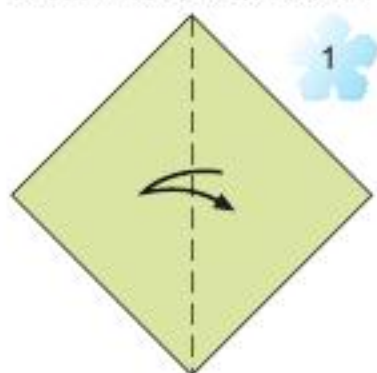


Fold the short flower holder according the diagrams presented in the article 'Short Flower Holder'. You can use an 11 x 5 ½ inches (30x15 cm) rectangle for the holder, and an 8 ½ x 2 ½ inches (21x7 cm) rectangle for the ring. Or if you've mastered folding this holder, try using smaller sizes of paper: an 8 ½ x 4 ¼ inches (21x10.5 cm) rectangle for the holder, and a 5 ½ x 1 ¾ inches (15x5 cm) rectangle for the ring.

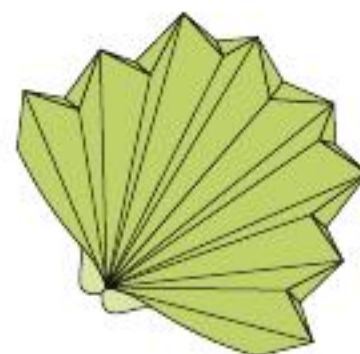
Leaf

Use a square of paper. It's better to use paper, colored on both sides, for example, regular copy paper. If using two-color paper, begin with colored side down.

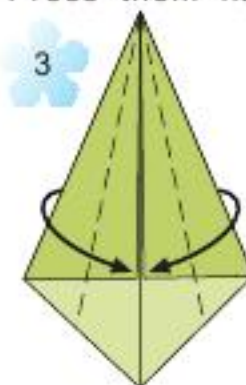
Valley fold the paper in half from right to left. Press it flat and unfold it.



Valley fold the upper sloping edges over to meet the middle fold-line.



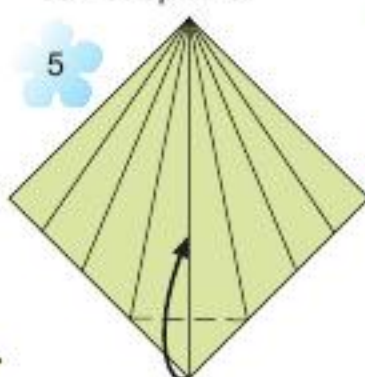
Again, valley fold the upper sloping edges over, so they lie along the vertical middle line. Press them flat.



This should be the result. Turn the paper over.

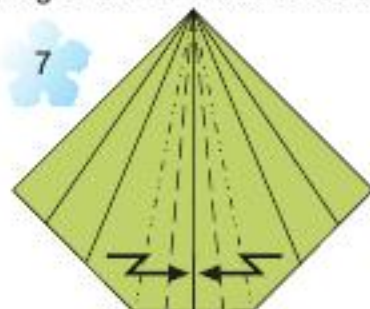


Valley fold the bottom corner upward.

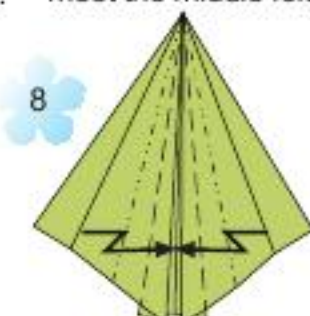


Valley fold the bottom corner upward as shown, and unfold it. Then, open out the right- and left-hand sides.

Note, that the mountain folds take place along existing fold-lines. Valley fold the 'mountain' creases to meet the middle fold-line, thereby 'step' folding the two central sectors.



Step fold the next two central sectors in half to meet the middle fold-line.



Valley fold the upper sloping edges over, so they lie along the vertical middle line. Press them flat.

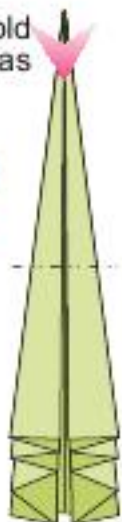


Again, step fold the next two central sectors in half to meet the middle fold-line.



Mountain fold the model as shown.

11

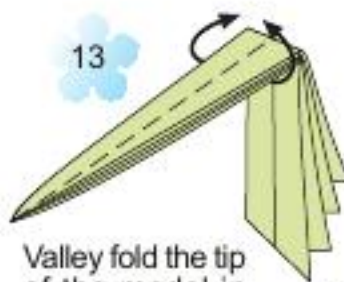


This should be the result.

12



13



Valley fold the tip of the model in half along the middle fold-line.

Compress the model in the marked places.

14

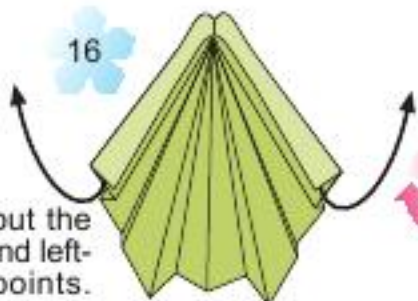


This should be the result.

15

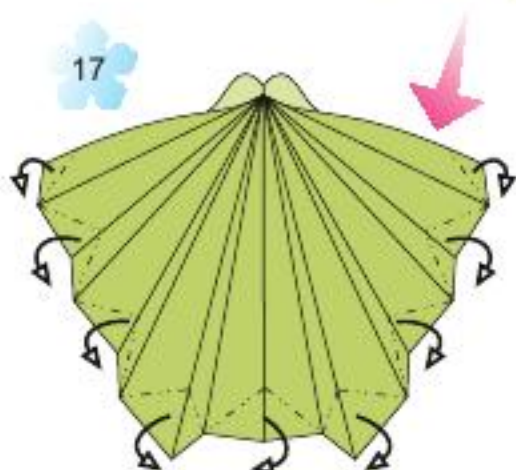


16



Open out the right- and left-hand points.

17



By mountain fold, shape the edges of the leaf plate, as shown.

Here is the completed serrated rounded leaf.

20



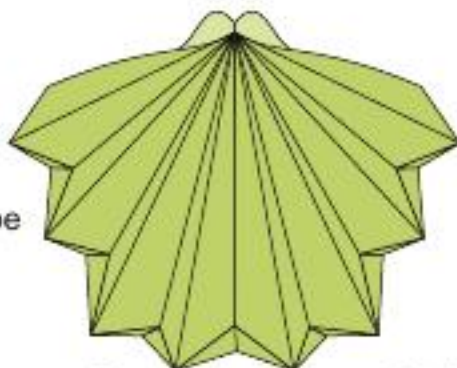
19

Side view.



18

This should be the result.

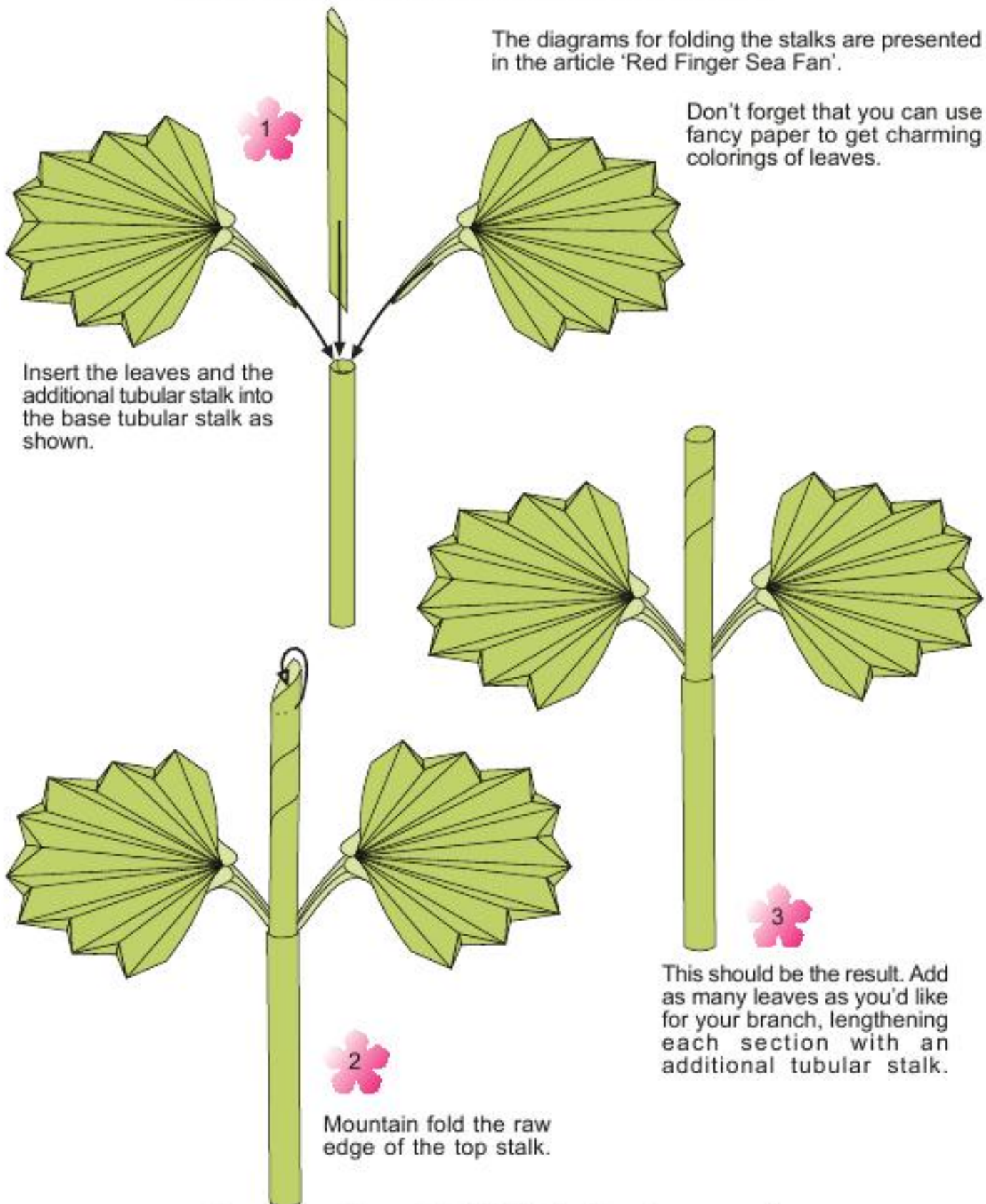


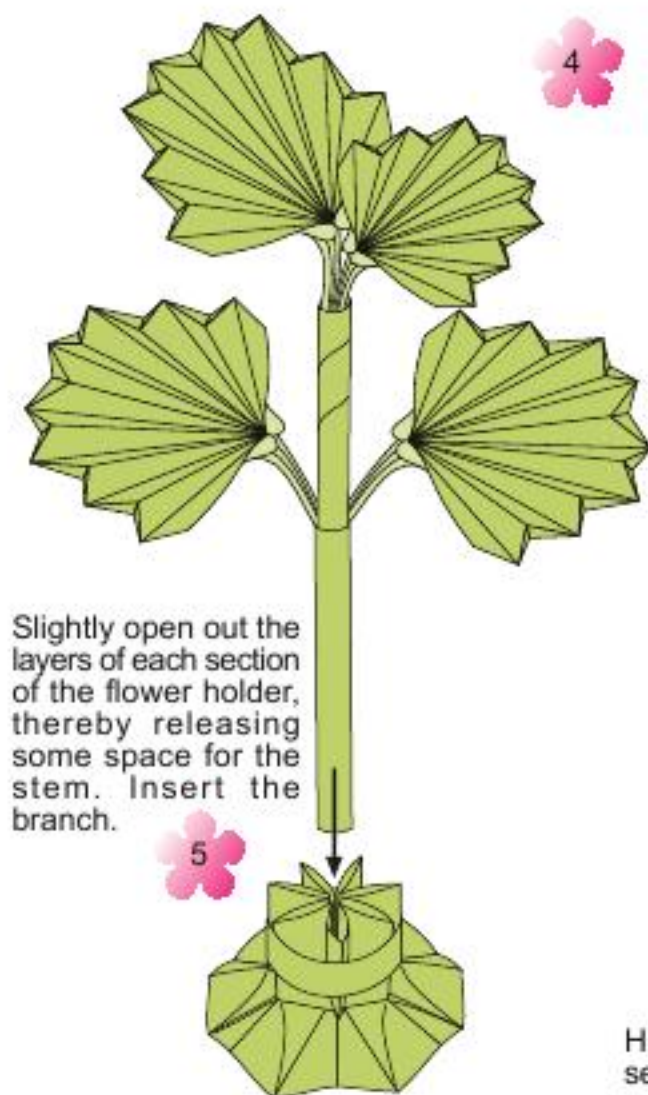
Branch Assembly

To make the branch you will need several leaves and tubular stalks. The base tubular stalk will be the basis of your branch. The additional tubular stalks will be used for branch levels.

The diagrams for folding the stalks are presented in the article 'Red Finger Sea Fan'.

Don't forget that you can use fancy paper to get charming colorings of leaves.

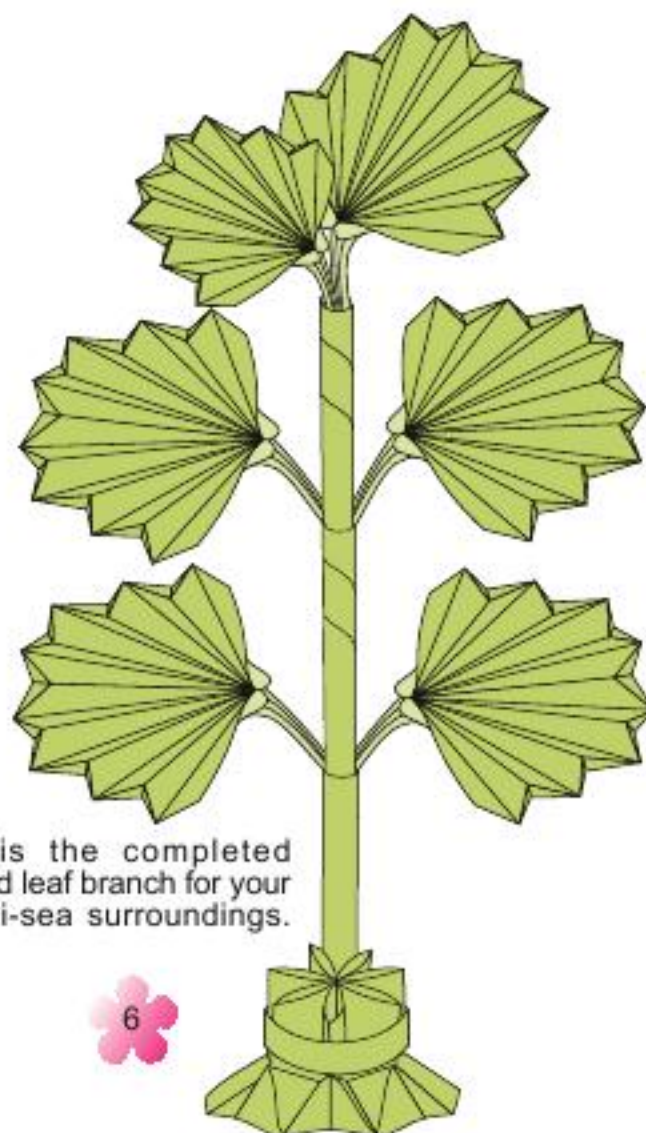




Slightly open out the layers of each section of the flower holder, thereby releasing some space for the stem. Insert the branch.

4

Finish the branch with the leaves on the top. You can fold the smaller leaves for the top to give the branch a natural look.



Here is the completed serrated leaf branch for your origami-sea surroundings.

6

ORILAND
What Origami Can Be!

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