

# Tangram Paper Art

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## 1. Targets

: People who are interested in tangram with folding paper or teachers or parents who have preschool children and elementary school students.

## 2. Text Type

: Procedure

## 3. Introduction

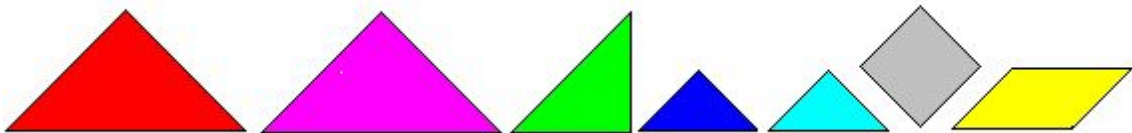
: We've interested in folding paper and we apply this in our class. Most students like to make things through folding art. Tangram with folding art is Especially useful teaching tool and effective instrument for young learners. We would like to share information about tangram and describe how to make tangram pieces with folding paper.

#### 4. What is Tangram?

: It is a Chinese puzzle which consists of a square divided into seven pieces that can be made into different shapes by matching.

Tangram is one of the most popular games for students.

Put 7 different pieces together (five triangles, one square and one parallelogram). All the pieces are used and do not overlap.



<five triangles, one square and one parallelogram>

#### 5. The educational effects of Tangram with folding paper

- Process to explore geometric shapes and spatial visualization
- Demonstrate a positive impression to learn mathematics.
- Improve problem–solution ability and modeling skills.
- Students can enjoy this activity in their free time. This is a healthy amusement.
- Promote cognitive development

- Develop concentration and motor skills
- Develop observation and imagination
- Improve confidence and sensitive feeling and color sensation

## 6. How to use Tangram with folding paper in education

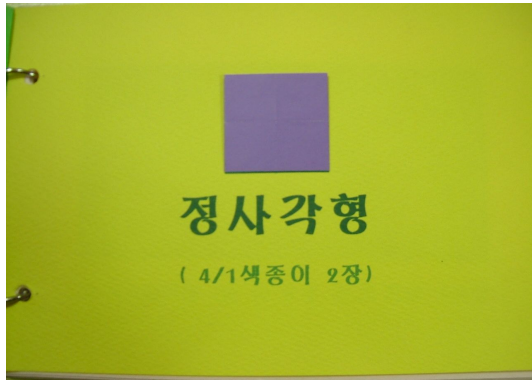
It is a very useful teaching tool that is used in a parallelogram unit in 3rd grade and a square unit in 4th grade.

Teachers can use parallelogram and square and triangle when they teach mathematics.

It could be used in art subject usefully. Students can make many kinds of animals and products.

## 7 . How to make Tangram with folding paper

## How to make a square\*^^\*



\* Prepare 2 pieces of colored 7.5cm x7.5cm paper.

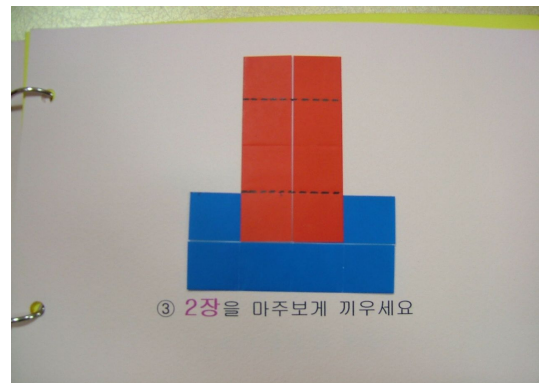


1. Fold in half and unfold.

-fold both sides to the centerline.



2. Fold to make a square. Repeat with second paper.



3. Tuck the two pieces of paper into each other.

## How to make a parallelogram\*^^\*



\* Prepare 2 pieces of colored 7.5cm × 7.5cm paper.



1. Fold in half and unfold.

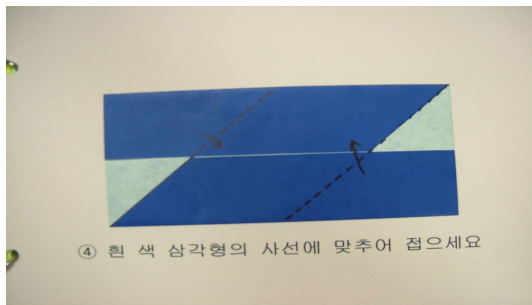
-fold both sides to the centerline.



2. Unfold again and fold two facing corner of paper. Fold two opposite edges.



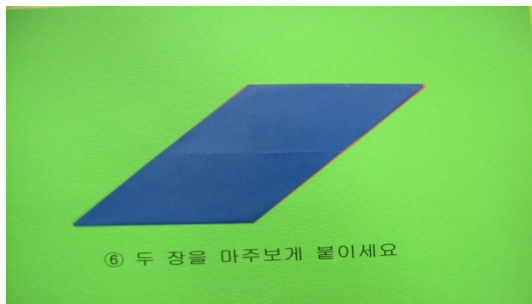
3. Again fold back to the center line.



4. Fold to the diagonal line of white triangles.

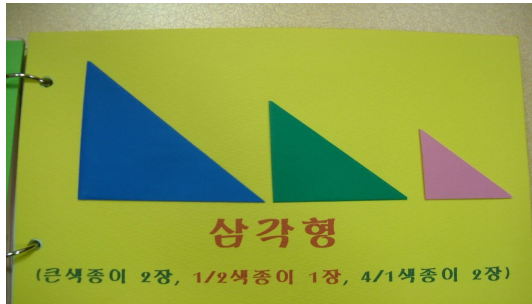


5. Tuck the folded triangles the facing sides.

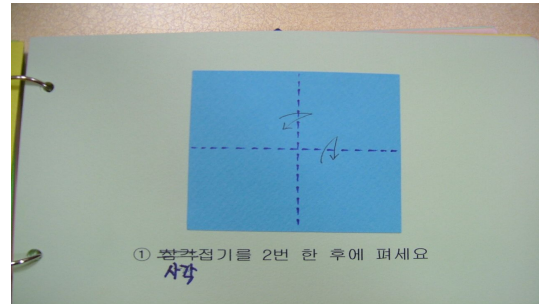


6. Attach the two pieces of paper face to face with glue

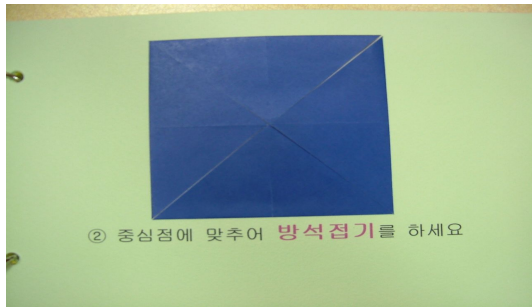
## How to make a triangle\*^^\*



\* Prepare 2 pieces of colored 15cm × 15cm sized paper, a piece of colored 10.5cm × 10.5cm sized paper and two pieces of colored 7.5cm × 7.5cm sized paper.



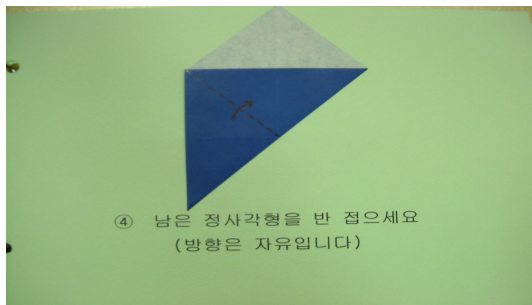
1. For each pieces of paper fold both sides in half.



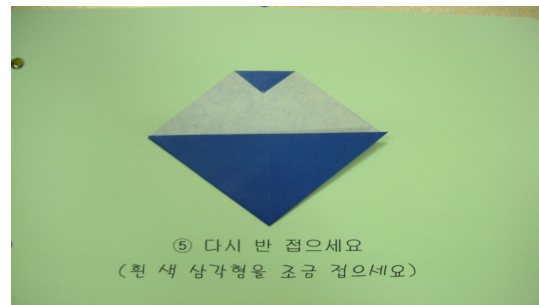
2. Fold the four corners into the center.



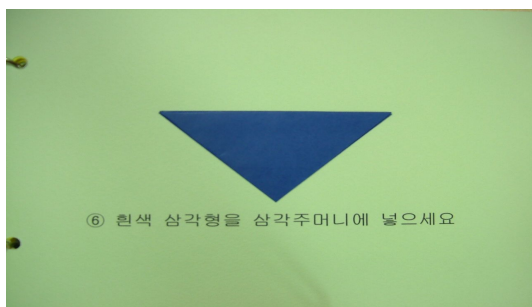
3. Unfold only one side.



4. Fold the square in half.



5. Fold again in half - fold the triangle.

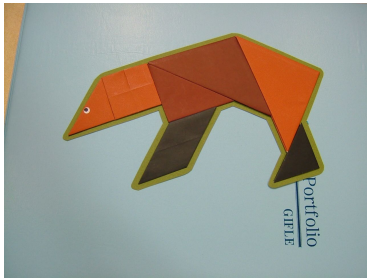


6. Tuck the loose triangle in to the triangle pocket.

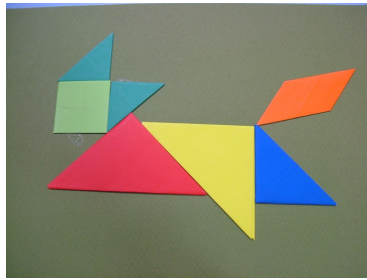


Assemble triangles square and parallelogram (a regular square)

## 8. Tangram Paper Art



Bear



Cat

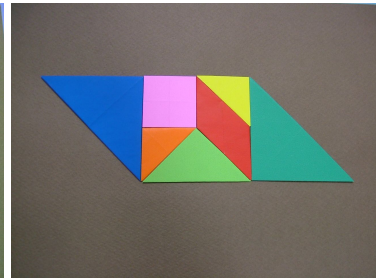


Diagram 1

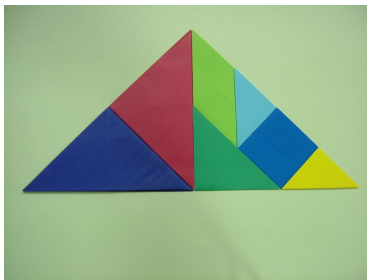
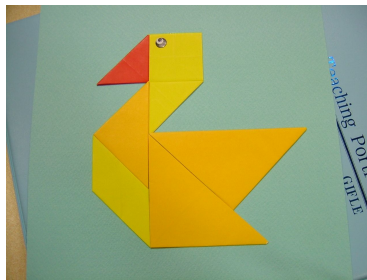
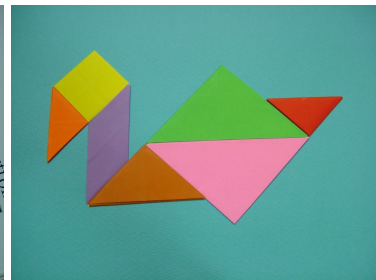


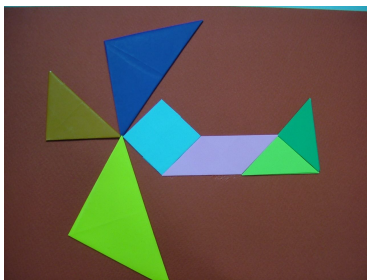
Diagram 2



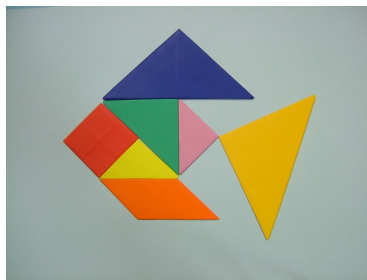
Duck 1



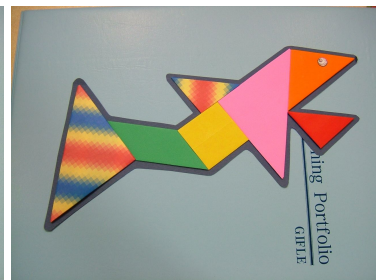
Duck 2



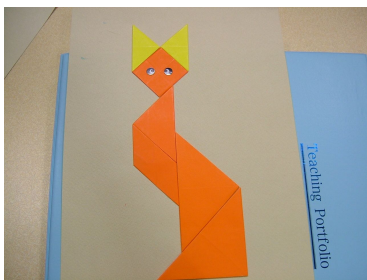
Fan



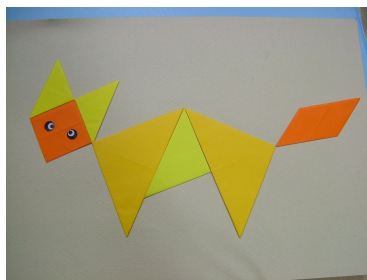
Fish 1



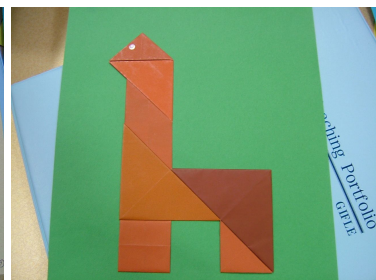
Fish 2



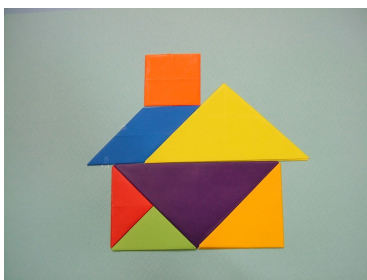
Fox 1



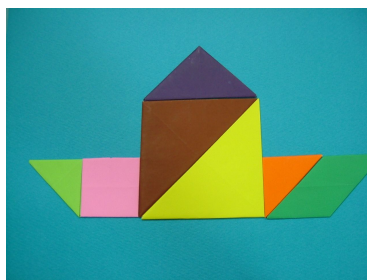
Fox 2



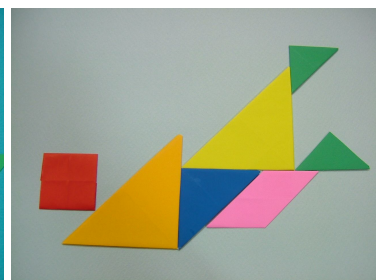
Giraffe



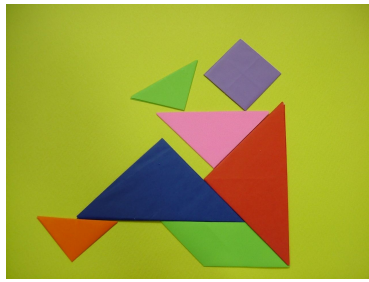
House 1



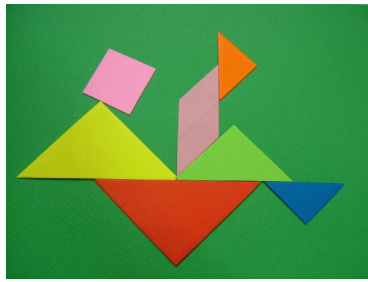
House 2



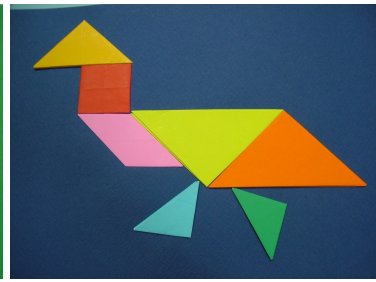
Person 1



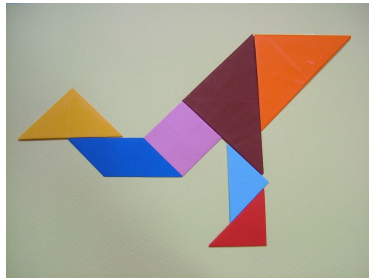
Person 2



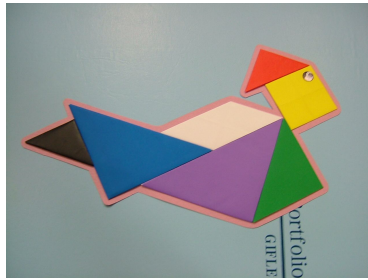
Person 3



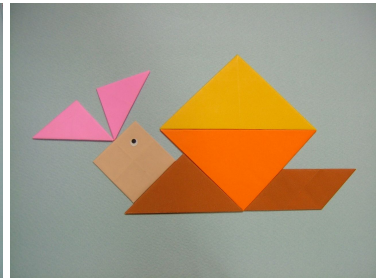
Ostrich 1



Ostrich 2



Pigeon



Snail

## 9. References

<http://www.uen.org/Lessonplan/preview.cgi?LPid=11079>

Book : "A country of paper" written by Jeon Kyoung Ja

Product of our folding paper: made by Chu Eun Ha and Kim Bo Mi