



G3.59 | COMPOSITE SHAPES USING TANGRAM

Geometry & Measurement Concepts - NCERT Chapter 5: Shapes and Designs

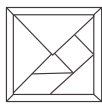
Students will be able to understand spatial coordination by putting 2D shapes into composite shapes

40- 50 min

PRE REQUISITES:

G3.58 Know how to make geometrical patterns using 2D shapes

TLM



Tangram : 4 students

MISCONCEPTIONS

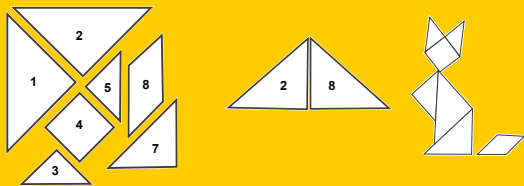
None

KEY VOCABULARY

None



PLAY



Knowing a Tangram

Divide students in groups of 4. Give a tangram kit to each group. Ask them to look at all the pieces & describe them

Encourage the students to use known vocabulary like "straight lines", "square", "triangle" etc.

Ask the students to use 2 triangles to make a bigger triangle

Now arrange the tangram pieces to show a cat

Ask the students to replicate it

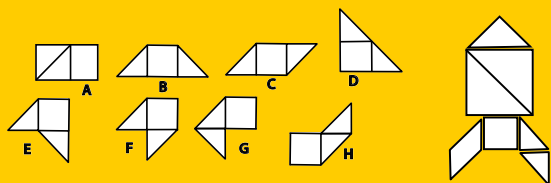
Ask the students to move around the pieces to make other interesting shapes

TEACHER'S NOTES

Initial free play is important to get acquainted with the shapes & their orientation in space



PROCESS



Composite shapes using a Tangram

Take a tangram set & tell students that pieces can be put together to make many different shapes

Pick 2 equal triangles & a square & arrange them in different orientations as shown

Make a rectangle using 2 triangles and a square. Tell the students it is a rectangle

Make a bigger triangle using the 3 pieces & tell the students it is a triangle

Emphasize that the pieces used for constructing the two shapes are the same but are placed in different orientations

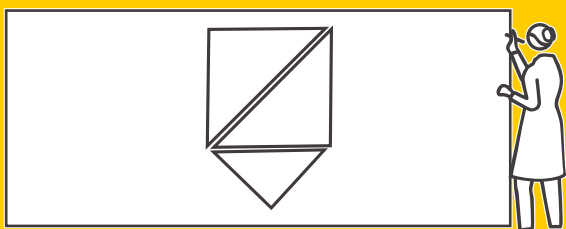
Assemble all the pieces to show a rocket as shown

Point to the top of the rocket & count the no. of pieces. Point to the bottom of the rocket & count the pieces

Summarize that simple shapes can be arranged to make many a variety of complicated or bigger shapes



PRACTICE



Draw the question & ask the students to solve it

Help the students solve question 2 from the worksheet. Ask the students to match the shape with the shapes used to make it



Encourage the students to try to draw the shape using triangles & square pieces on a paper

QUESTION

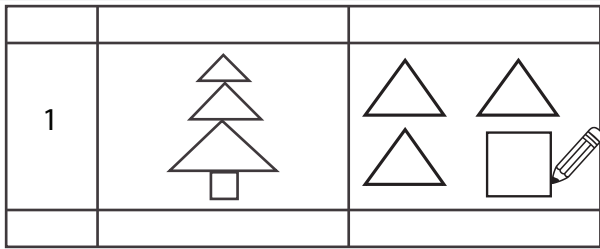
What other shapes can you make using the three triangles

Help the students solve question 4 from the worksheet. Ask the students to count the shapes used to make this walking man

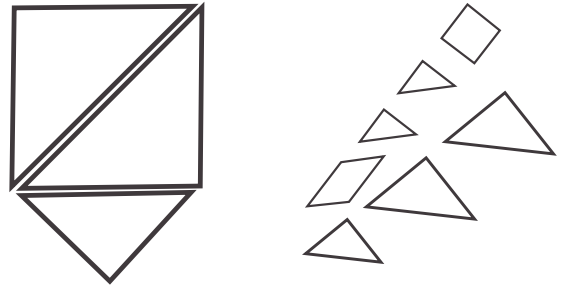




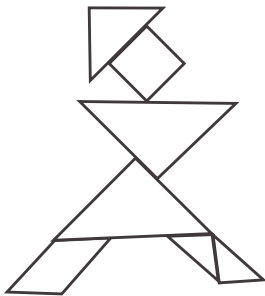
- ① SOLVED EXAMPLE : Break the shapes shown here into their Tangram pieces:



- ② Match the shape with the shapes used to make it



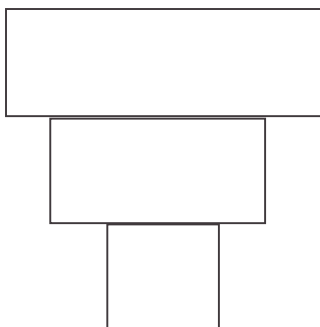
- ③ Count the shapes used to make this walking man



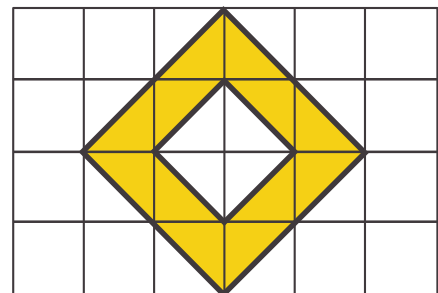
- ④ Make a square using:

- a. 2 rectangles
- b. 4 small squares

- ⑤ Make this shape using squares only



- ⑥ How many triangles will you use to make this shape



Observe this bird & recreate using tangram pieces. Can you move a few pieces so that it looks like it is facing upwards.

