

SESSION : 4

CLASS : 3

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 7

CHAPTER NAME : GEOMETRY

SUBTOPIC : TESSELLATION, IDENTIFYING TESSELLATION

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE :

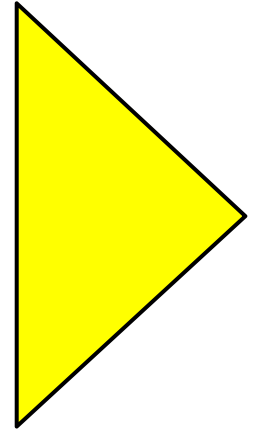
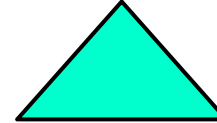
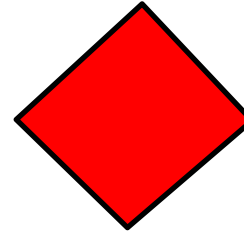
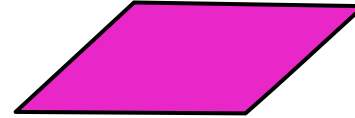
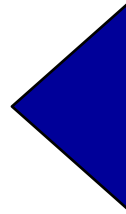
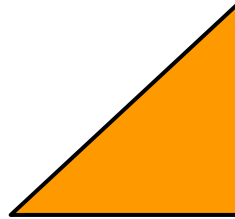
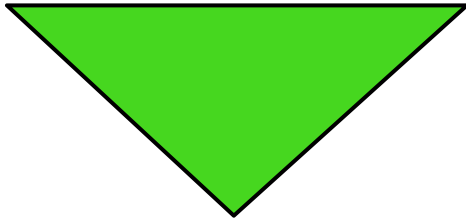
Children will:

- * Follow precise, multi-step directions.
- * Have the opportunity to go beyond the immediate lesson and apply artistic creativity, or learn more about tessellation.
- * Be able to create a concrete model of a tessellation.
- * Define and identify tessellations.
- * Discriminate between a pattern and tessellation.
- * Find tessellations in the real world.

GEOMETRY

TESSELLATION, IDENTIFYING TESSELLATION

RECAPITULATION



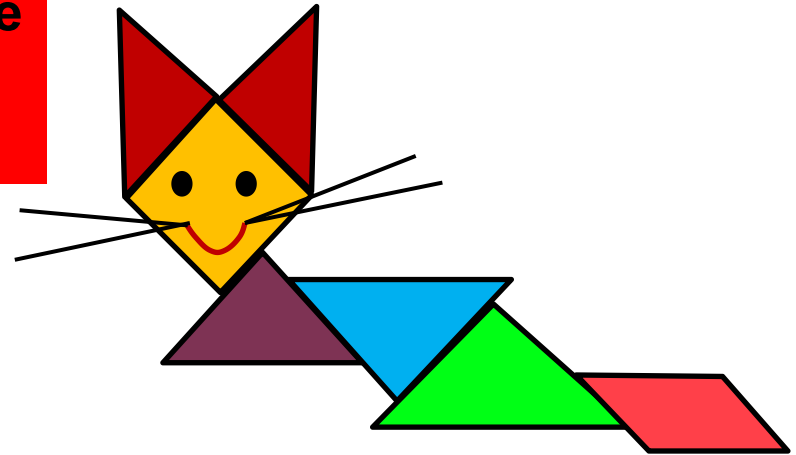
- 1) These are pieces of TANGRAM puzzle.
- 2) There are 7 peices in a tangram puzzle ?

GEOMETRY

TESSELLATION, IDENTIFYING TESSELLATION

Draw an animal design using tangram pieces.

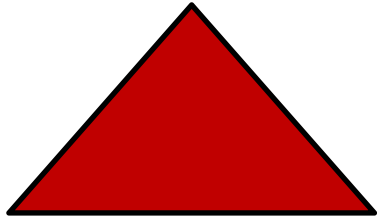
See you can use tangram pieces to write alphabets and make words also. Make the first letter of your name.



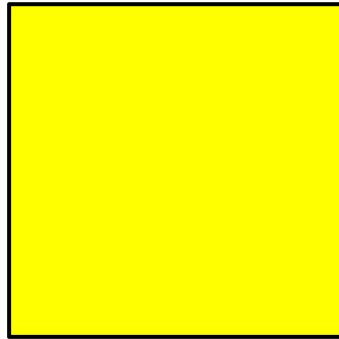
GEOMETRY

TESSELLATION, IDENTIFYING TESSELLATION

Can you recognize these 2D shapes?



Triangle



Square



Rectangle

We can make tessellation designs using these 2D shapes.

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What is tessellation ?

The process of covering any flat surface with a pattern of 2-D shapes such that no part remains uncovered or overlaps is called tessellation or tiling.

A tessellation is a tiling over a plane with one or more figures such that the figures fill the plane with no overlaps and no gaps. Examples of a tessellation are: a tile floor, a brick or block wall, a checker or chess board, and a fabric pattern.

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RULES TO TESSELLATE A SURFACE

RULE 1 Tessellation must tile a surface without a gap or overlap.

RULE 2 The tiles must be regular polygons and of the same size.

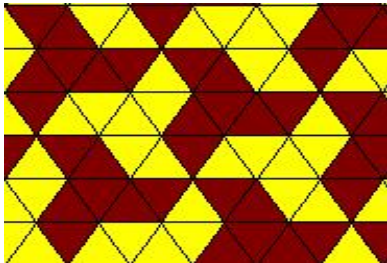
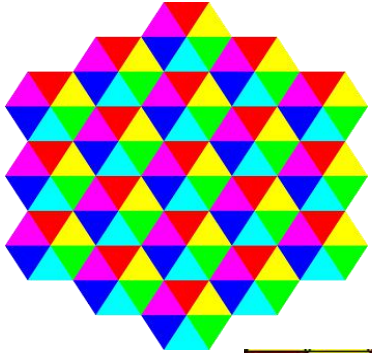
RULE 3 Each vertex must look the same.

GEOMETRY

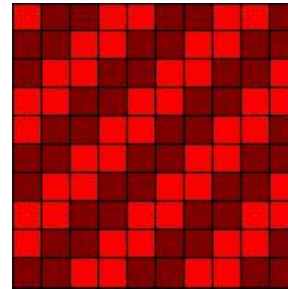
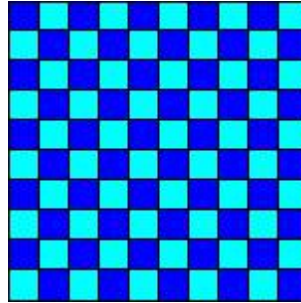
TESSELLATION, IDENTIFYING TESSELLATION

Different types of tessellations:

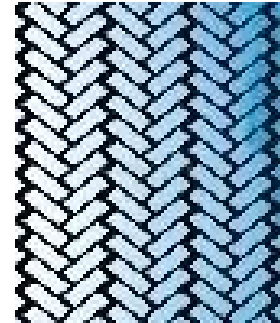
Triangular tessellation



Square tessellation



Rectangular tessellation

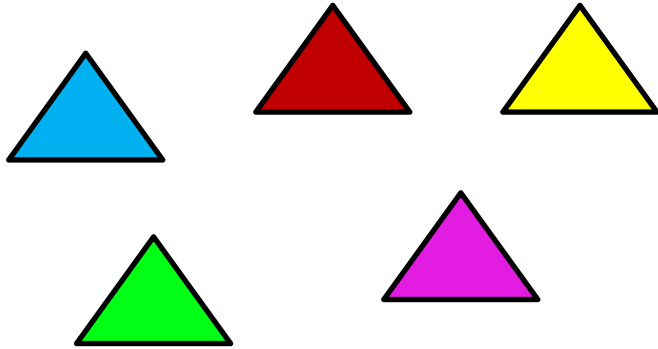


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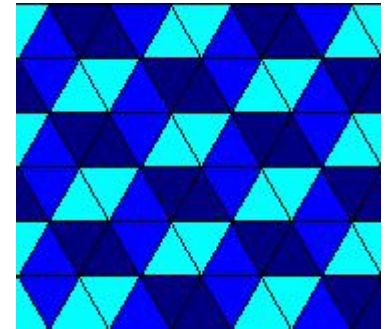
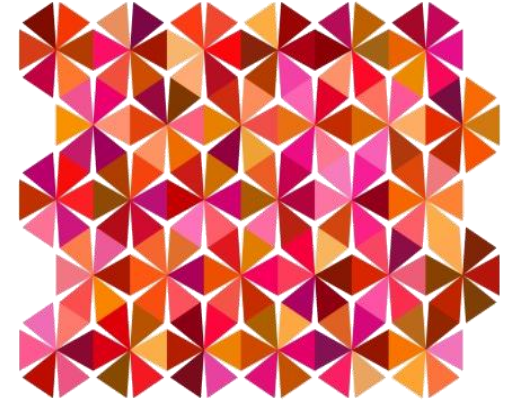
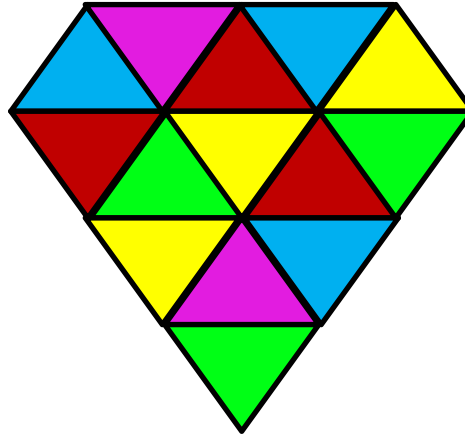
TESSELLATION, IDENTIFYING TESSELLATION

Can you form different patterns with the below shapes.

TRIANGLES



Let us try.



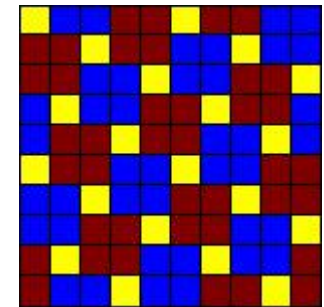
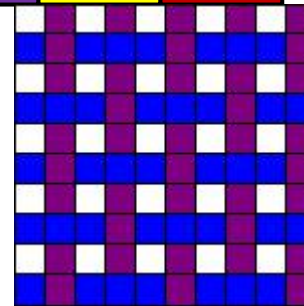
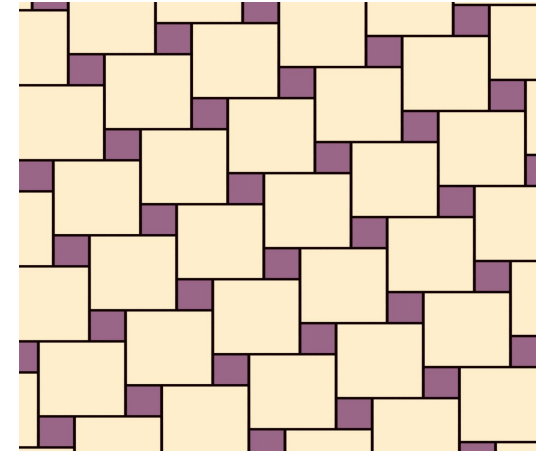
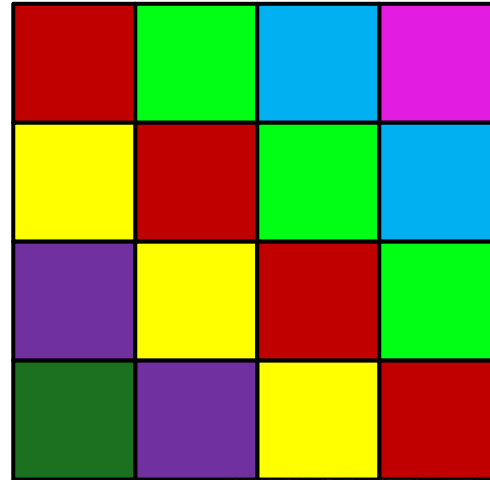
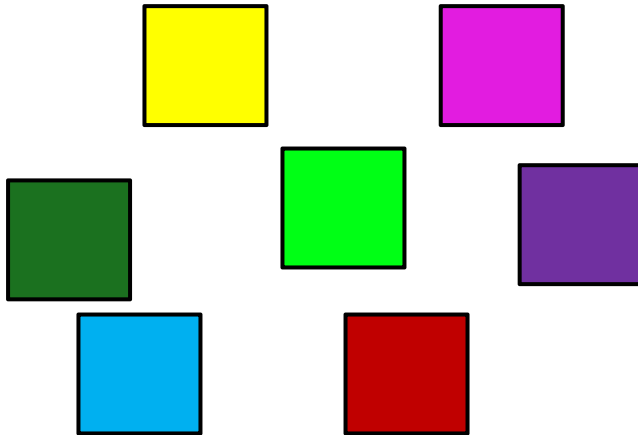
GEOMETRY

TESSELLATION, IDENTIFYING TESSELLATION

Can you form different patterns with the below shapes.

Let us try.

SQUARES



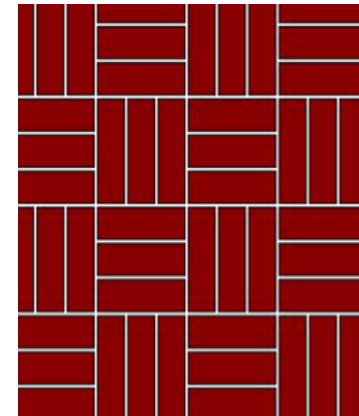
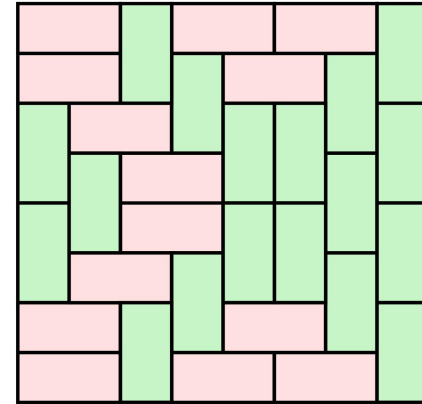
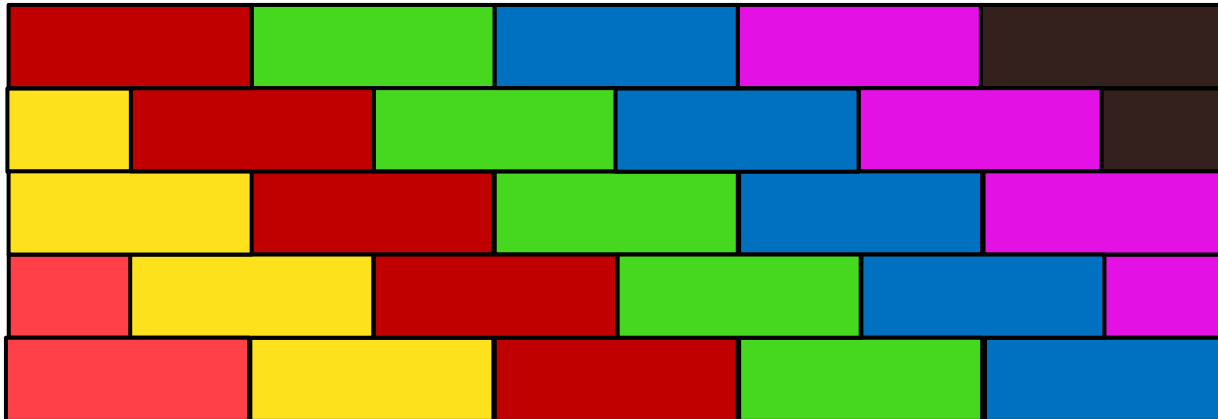
GEOMETRY

TESSELLATION, IDENTIFYING TESSELLATION

Let us try.

Can you form different patterns with the below shapes.

RECTANGLE



GEOMETRY

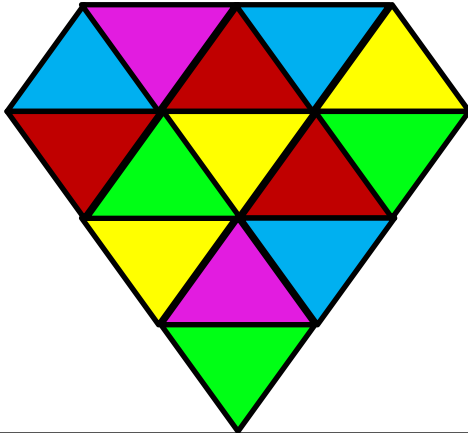
TESSELLATION, IDENTIFYING TESSELLATION

What is the unit shape in a tessellation?

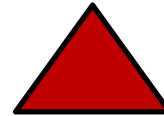
The pattern which is repeated to form a tessellation is the unit shape of the tessellation.

The unit shape does not overlap and there are no gaps between the shapes.

EXAMPLE



Unit Shape



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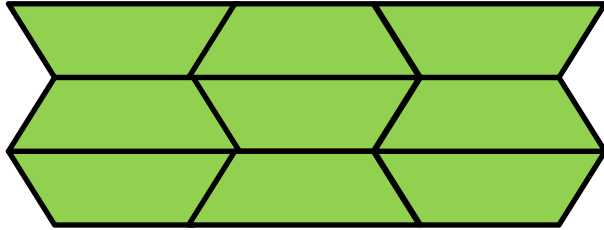
**Exercise-7 C Q. No 1
in the book.**



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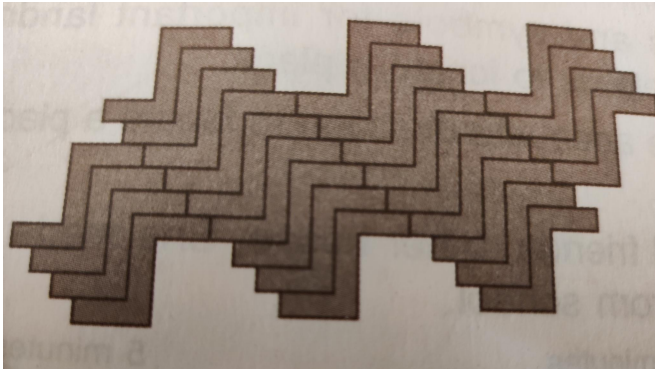
1



Unit Shape



2



Unit Shape



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3

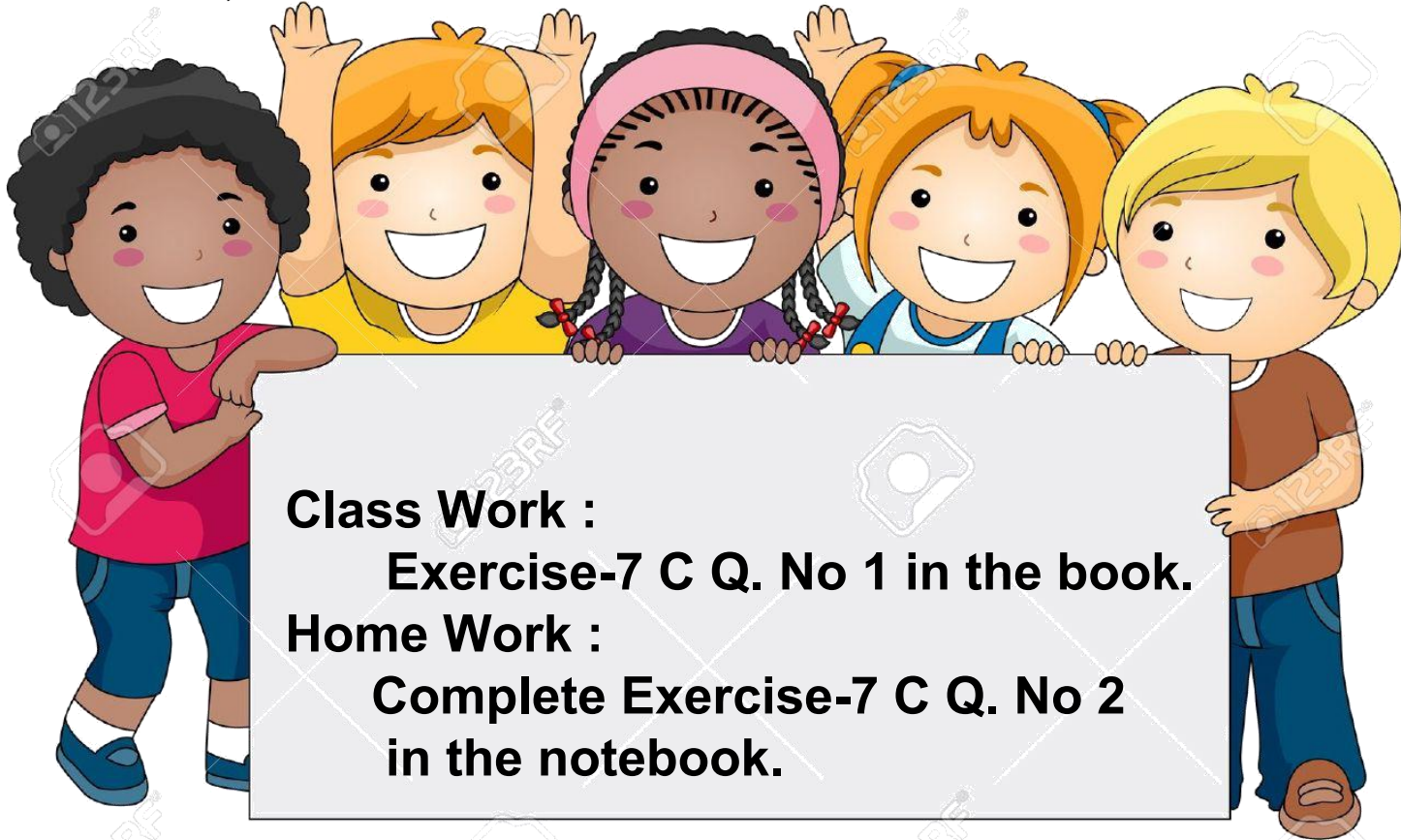


Unit Shape

??????????

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LEARNING OUTCOME:

Children are confident to follow precise, multi-step directions. Have the opportunity to go beyond the immediate lesson and apply artistic creativity, or learn more about tessellation. Be able to create a concrete model of a tessellation. Define and identify tessellations. Discriminate between a pattern and tessellation. Find tessellations in the real world.

THANKING YOU
ODM EDUCATIONAL GROUP