

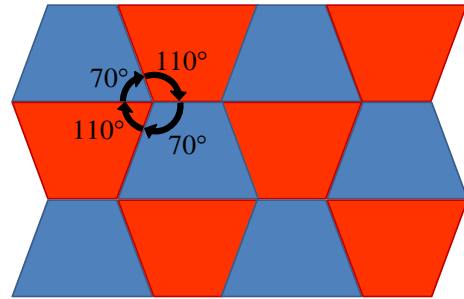
Lesson 12-6

Objective – To recognize and identify shapes that tessellate.

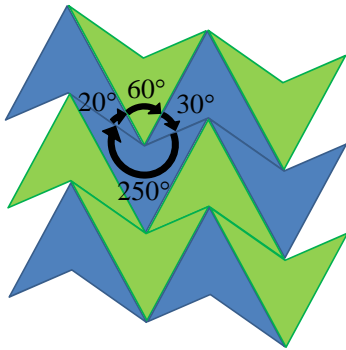
Tessellation - When a plane figure can cover a 2-D surface without any gaps or overlaps.



Sum of Adjacent Angles = 360°



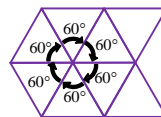
Sum of Adjacent Angles = 360°



Regular Tessellations

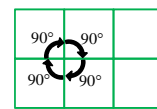
Only 3 regular tessellations exist.

Equilateral Triangles



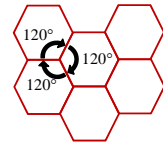
$$6(60^\circ) = 360^\circ$$

Squares



$$4(90^\circ) = 360^\circ$$

Regular Hexagons



$$3(120^\circ) = 360^\circ$$

Creating a Unique Non-Polygonal Tessellation

1) Start with a polygon that tessellates.



2) Make a cut into one side and paste it on the opposite side.



3) The new figure will tessellate.

