

# Shapes and Designs/Geometry Packet Overview

## Investigation One - Bee and Polygons

G.TE.06.03a

*\*\*Understand the basic rigid motions in the plane (reflections, rotations, translations)*

## Investigation Two - Polygons and Angles

G.GS.06.01

*\*\*Understand and apply basic properties of lines, angles, and triangles including:*

- *relationships of vertical angles*
- *relationships of complementary angles*
- *relationships of supplementary angles*

G.GS.06.01

*\*\*Understand and apply basic properties of lines, angles, and triangles including:*

- *congruence of corresponding and alternate interior angles implies parallel lines*
- *congruence of corresponding and alternate interior angles when parallel lines are cut by a transversal*

N.ME.06.18

Understand that rational numbers are quotients of integers (non zero denominators), e.g. a rational number is either a fraction or a negative fraction

## Investigation Three - Polygon Properties and Tiling

G.GS.06.01

Understand and apply basic properties of lines, angles, and triangles including:

- locate interior and exterior angles of any triangles
- know the sum of the exterior angles of a convex polygon is  $360^\circ$

## Geometry Packet

G.GS.06.04

Understand and use simple compositions of basic rigid transformations, e.g., a translation followed by a reflection

G.GS.06.03c

Apply the basic rigid motions in the plane to solve problems

G.GS.06.03b

Relate the basic rigid motions in the plane to congruence

G.GS.06.01

Understand and apply basic properties of lines, angles, and triangles including:

- Use the property that an exterior angle of a triangle is equal to the sum of the remote (opposite) interior angles

G.GS.06.02

Understand that for polygons, congruence means corresponding sides and angles have equal measures