## Only Five Regular Polyhedra

## Activity 3. Duality

Dual polyhedra have a special relationship. The number of vertices in one is the number of faces in the other, and vice versa. They have the same number of edges. Dual polyhedra can be inscribed in another.

A tetrahedron is formed when joining the midpoints of the faces of a tetrahedron. That is, the tetrahedron is its own dual.


Inscribe a cube in an octahedron connecting the midpoints of adjacent faces.


We can also inscribe an octahedron in a cube connecting the midpoints of adjacent faces.


