

Herschel enneahedron net

This is the smallest *non-Hamiltonian* polyhedron – you can't draw a path starting and ending at the same vertex which visits each vertex exactly once.

It's also the only enneahedron (nine-faced solid) in which every face has the same number of edges, and is one of only three *bipartite* enneahedra.

The Herschel enneahedron has $D_{\rm 6}$ symmetry – the symmetries of a regular hexagon.

There's some more information on how this shape was constructed at

http://bit.ly/herschelgraph