

Teaching and Assessing Polygons Using Technology

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ABSTRACT

Geometry is an integral component of mathematics learning because it allows students to analyze and interpret our physical environment. Furthermore, it equips students with tools they can apply in other areas of mathematics. It is therefore critical to help students build solid foundations and understanding of geometric concepts as well as gain adequate geometry related skills.

In our presentation, we will show a unit on Polygons in which dynamic geometry software is used for exploring and learning new concepts as well as assessment. Through various age appropriate activities students explore polygons and their properties, make conjectures, test them, reason about geometric ideas as well as demonstrate understanding and ability to apply their knowledge of polygons.

The activities used in our model create a motivating and engaging environment where technology allows students to discover mathematics on their own and construct their own understanding. The dynamic geometry software allows students to work at their own pace and feel free to take risks. It requires active engagement of students and encourages higher level thinking.

Keywords

geometry, teaching, assessment, dynamic geometry software, polygons