Forsythe, S. and Jones, K. (2009) BSRLM geometry working group: tasks that support the development of geometric reasoning at KS3. *Proceedings of the British Society for Research into Learning Mathematics*, 29(3), 103-108.

Abstract
Students at Key Stage 3 (ie aged 11-14) in English schools are expected to learn the definitions of the properties of triangles, quadrilaterals and other polygons and to be able to use these definitions to solve problems (including being able to explain and justify their solutions). This paper focuses on a pair of Year 8 students (aged 12-13) working on a task using dynamic geometry software. In the research, the children investigated triangles and quadrilaterals by dragging two lines within a shape (ie the diagonals of a quadrilateral, or base and height of a triangle) and noting the position and orientation of the lines which gave rise to specific shapes. Following this, the students were asked to use what they had found in order to construct specific triangles and quadrilaterals when starting with a blank screen. While the research is currently ongoing, and is using a design research methodology, the evidence to date is that the task has the potential to scaffold students' thinking around the properties of 2D shapes and hence support the development of geometric reasoning.

For the full text, please click on the following link:
http://www.bsrlm.org.uk/IPs/ip29-3/BSRLM-IP-29-3-20.pdf

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