# Geometry

Choose a pattern block piece.

Give clues about your polygon so someone reading your clues will be able to name the polygon you picked.

Trace your polygon at the bottom and fold the paper so only your clues are showing.

**Grade Levels Pre-K-2**

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## Context

This task was done in a first grade class after the study of angles and polygons. Using pattern block pieces they studied acute, obtuse and right angles, parallel lines, the names of polygons like triangle, square, rectangle, triangle, hexagon, parallelogram and trapezoid.

## What This Task Accomplishes

The problem was to assess how well the students could use the vocabulary that was being studied.

## What the Student Will Do

Students will pick a piece they feel comfortable with.

## Time Required for Task

30 minutes

## Interdisciplinary Links

This unit works well with a unit on architecture.

## Teaching Tips

Instead of the student picking the polygon, you may want to pick the piece. Older students may want to pick more than one polygon and make up rules to describe the set of pieces they have. Have students check to see if their partners have more rules than are needed.

You may need recorders for those students who do not write or allow students to leave clues on a tape recorder to be scribed later.

## Suggested Materials

- Pattern blocks
- Paper with 5-6 lines at the top half (to record clues) and blank space at the bottom (for tracing the shape).

## Possible Solutions

Varies for each pattern block piece. For example the parallelogram piece could be described as having opposite sides parallel, two acute angles and two obtuse angles.

## Benchmark Descriptors

**Novice**
An attempt is made to describe the polygon, but it is so general that it could be just about any of the quadrilaterals.

**Apprentice**
These clues begin to narrow the choices of pattern block pieces. However, the description is correct for a parallelogram as well as the trapezoid that is pictured. The student was not able to make clues that uniquely described their piece.

**Practitioner**
This student gave clues that uniquely described the parallelogram.

**Expert**
This student used precise mathematical language to uniquely describe the trapezoid.