

# Matchstick moves

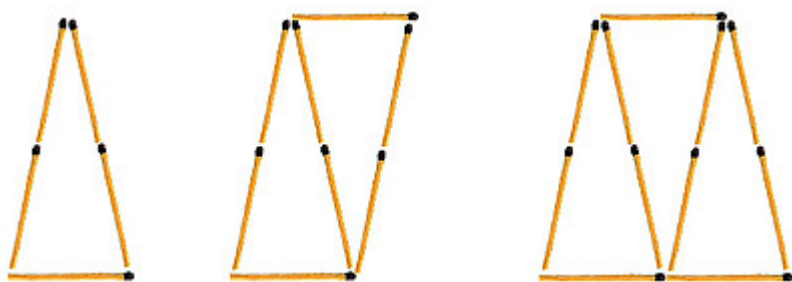
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## Annotation

Angela can continue a growing spatial pattern and describe what is happening in the number sequence.

## Problem: Matchstick moves

Room 3 are investigating matchstick patterns. The children are working in pairs and taking turns to continue each other's patterns. One student makes the following matchstick pattern in front of their partner:



As the teacher watches, the student poses this problem for their partner:

*Can you keep my pattern going? How many triangles will be in the next pattern?*

## Student Response

Angela adds the fourth segment to the pattern:



Angela: Four.

Teacher: Tell me about the pattern.

Angela: Well, each triangle has two matchsticks for the sides and just one for the bottom. There's an up-the-right-way triangle and then an upside-down one, so mine had to be upside down. The first triangle uses five matchsticks, but for the next ones just add three matchsticks coz one side is already there. So the matchsticks go 5, 3, 3, 3.