

# Teaching Cases



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Grade 6

Matatalab Coding Set, Artist add-on

## **How many kids are in a group?**

2

## **How was the Matatalab robot(s) used?**

Students were concluding their unit in Geometry on Triangles in Math. Using the Artist add-on students used MatataLab to code Triangles. It was inspired by the activity card with the equilateral triangle on it which triggered quite an in depth conversation. This was due to the fact that the students knew the inner angle of an equilateral triangle are each 60 degrees adding up to the total of 180. On the activity card it said to turn 120 when the students assumed it would be 60. We tried 60 and quickly realized that this did not work. So we started talking about the outside angles. Extended the lines and looked at how far we would have to turn. From the equilateral students then wanted to attempt triangles that had acute angles, obtuse angles, and a right angle. There was a lot of problem solving and communication as well as collaboration. There were also a lot of mistakes, but that is where the learning begins. When they messed up they were motivated to try again, changing the pen colour to see the difference. On one of the mistakes a student realized that even though what they were aiming for had not worked one more turn and line and they would have a parallelogram, so they did and then they calculated all of the internal angles and compared that to a triangle. Students successfully drew many triangles and just wanted to keep challenging themselves.

## **What skills did it develop?**

Collaboration, Communication, Problem Solving, Critical Thinking

## **What worked best and what was challenging?**

The amount of angle blocks is great, student can use them on their own or combine them to create other angles. Use of the MatataLab itself was easy for these students (I know the age recommendation is 4-9, but these 11 year olds loved it). They would switch the pen colour to see from one trial to the next how they improved. Challenges: Battery died, but we have two so the other one was charged and ready to step in. Other challenge was keeping it on the paper, we should have had larger paper to start.

## How did students respond?

The students loved using MatataLab. They had been recently drawing triangles with rulers and protractors in class and they expressed that this was way more fun. Even though it was fun, lots of learning was taking place. When mistakes happened they did not get frustrated but simply tried again, they even laughed at themselves.

## Share your comments upon the class using Matatalab

This was only two people at one time using the MatataLab as an extension of what they were doing in Math but it was extremely successful. We have two Pro Sets currently at our school that were purchased for the lower elementary, however when I saw the artist add-on I thought of our grade 6 students as I watched them drawing triangles on a walk through the other day. This was a perfect fit for them and they enjoyed using it.

## Any others you would like to share

We will continue to explore how we can use MatataLab to support the curriculum in our school, using it with our youngest (grade Primary) to our oldest (Grade 6). With the pro set we also have the music add-on that we are working on figuring it out.

