

Geometry with Coding, Robots & More!

Discover

Your teacher will break you up into 4 groups. You will be assigned a different challenge each week you visit the STEM lab. Be prepared for your challenge by watching the BEFORE videos. Click below to jump to your assigned task.

[Volume With Magnatiles](#)

[Angles with Sphero](#)

[Quadrilaterals and Perimeter with Dash](#)

[Geometry with BreakoutEdu](#)

Volume with Magnatiles

BEFORE:



DURING:

Your challenge:

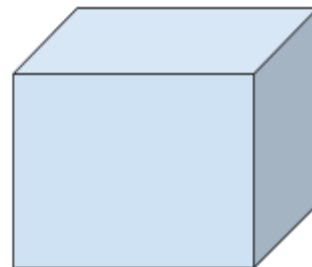
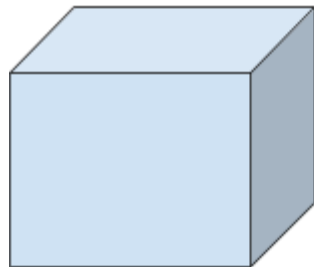
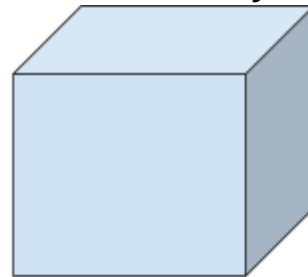
Use the magnatiles in the STEM lab to create three different 3D shapes (cubes or rectangular prisms) Use the ruler provided to calculate the volume in cm^3 You can make more than one shape.

Work as a group to calculate the volume.

AFTER:

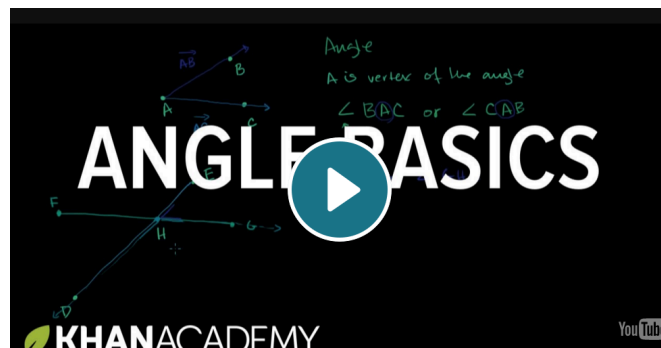
Use this Google Drawing to show the three 3D shapes you created. Click on the image to edit. Click Save & Close when you are finished.

Edit these three cubes by clicking on them to represent the three you built in the STEM lab. Label the dimensions (length, width and height) using text boxes and the calculated volume in cm^3 .



Angles with Sphero

BEFORE:



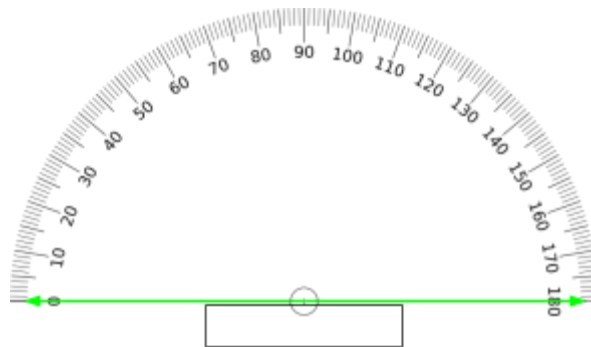
DURING:

Your challenge:

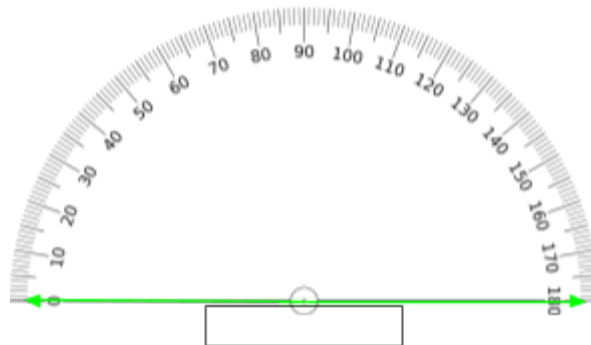
On a large piece of paper, whiteboard or using blue tape draw out two angles (one acute and one obtuse) for sphero to drive on. Be sure to record your angles and the code you used!

AFTER:

Use this Google Drawing to show two of the angles you coded sphero to drive on. Click on the image to edit. Click Save & Close when you are finished.



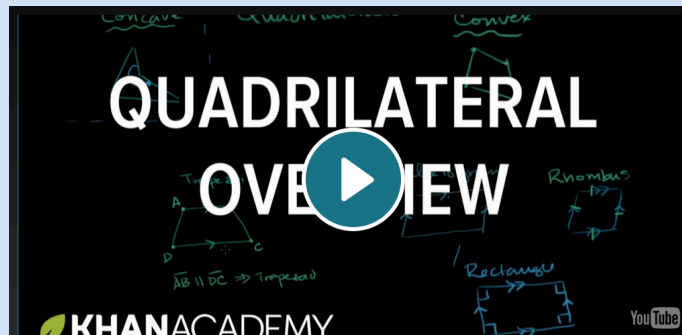
Click on arrow to the right then click on the blue dot to move the arrow to make an angle. Type in the degrees in the text box below.



Click on arrow to the right then click on the blue dot to move the arrow to make an angle. Type in the degrees in the text box below.

Quadrilaterals and Perimeter with Dash

BEFORE:




DURING:

Your challenge:

Using blue tape map out two courses for dash to drive on. They must be different quadrilaterals! Measure the perimeter of your course by using the ruler provided to you.

AFTER:

Use this Google Drawing to show the three quadrilateral course you made. Click on the image to edit. Click Save & Close when you are finished.

Use the shapes menu  to find the quadrilaterals you used to create your course for dash. Label the length of all sides and the perimeter of your course.

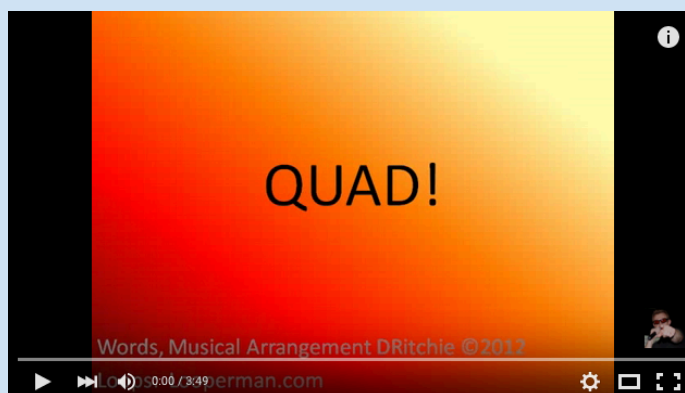
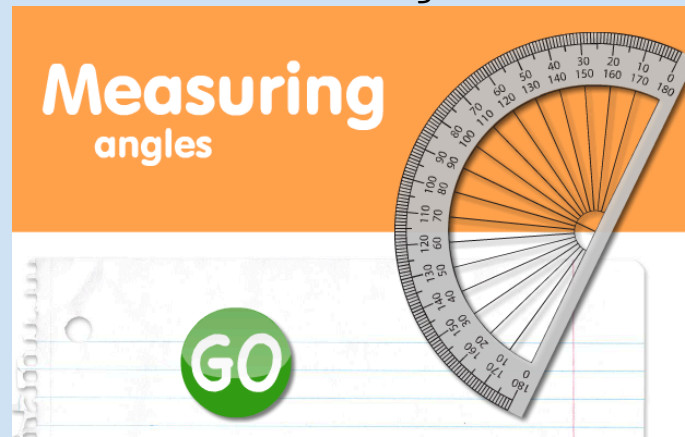


Geometry with BreakoutEdu

Teachers we are playing World of Geometry which can be found [here](#). **DELETE this before you assign!*

BEFORE:

You will need to watch these three videos to prepare for our BreakoutEdu game!



DURING:

Your Challenge:

Use your geometry skills and work with your team to unlock all of the locks and find out what is inside the box!

AFTER:

What did you think about this challenge? What resources did you need to break out of the box? How did geometry help you solve the puzzles?

Type your thoughts here:

Connect & Extend

Have some time to spare? Play one of these Geometry [games](#) to test your new Geometry knowledge!

Ready for a challenge? Find a partner to work on this activity. Both of you will need your chromebooks. One of you will open up [Scratch](#) and the other will open up this [video](#). Follow the steps to code 2D figures with Scratch! Take a screenshot of your final program (all the lines of code) and paste it below!

To take a picture of part of your screen (screenshot)

ctrl

shift

