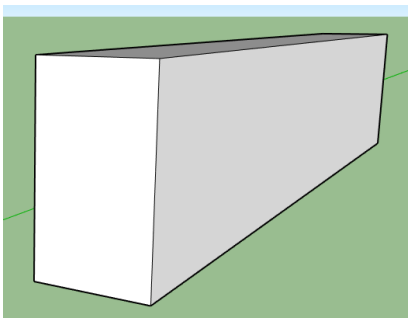
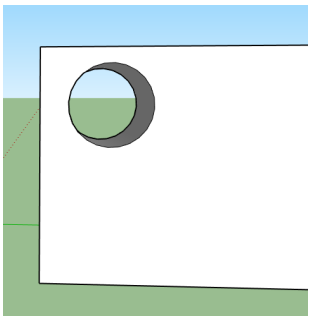
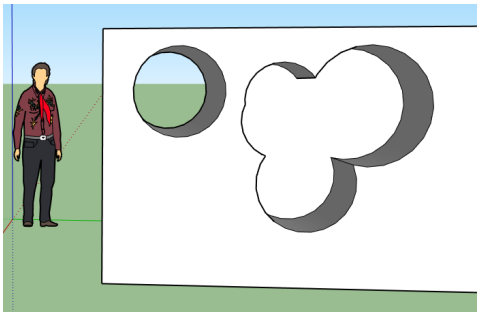
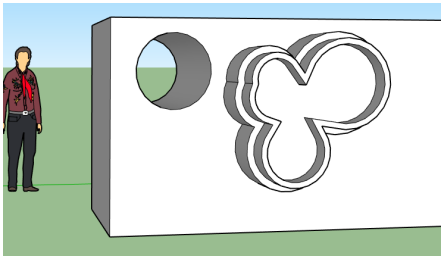
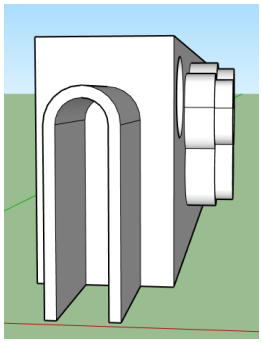
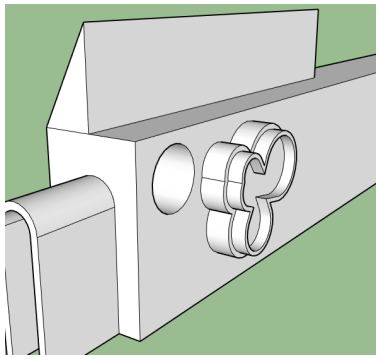
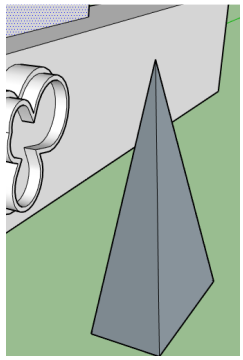
Using basic functions in sketchup

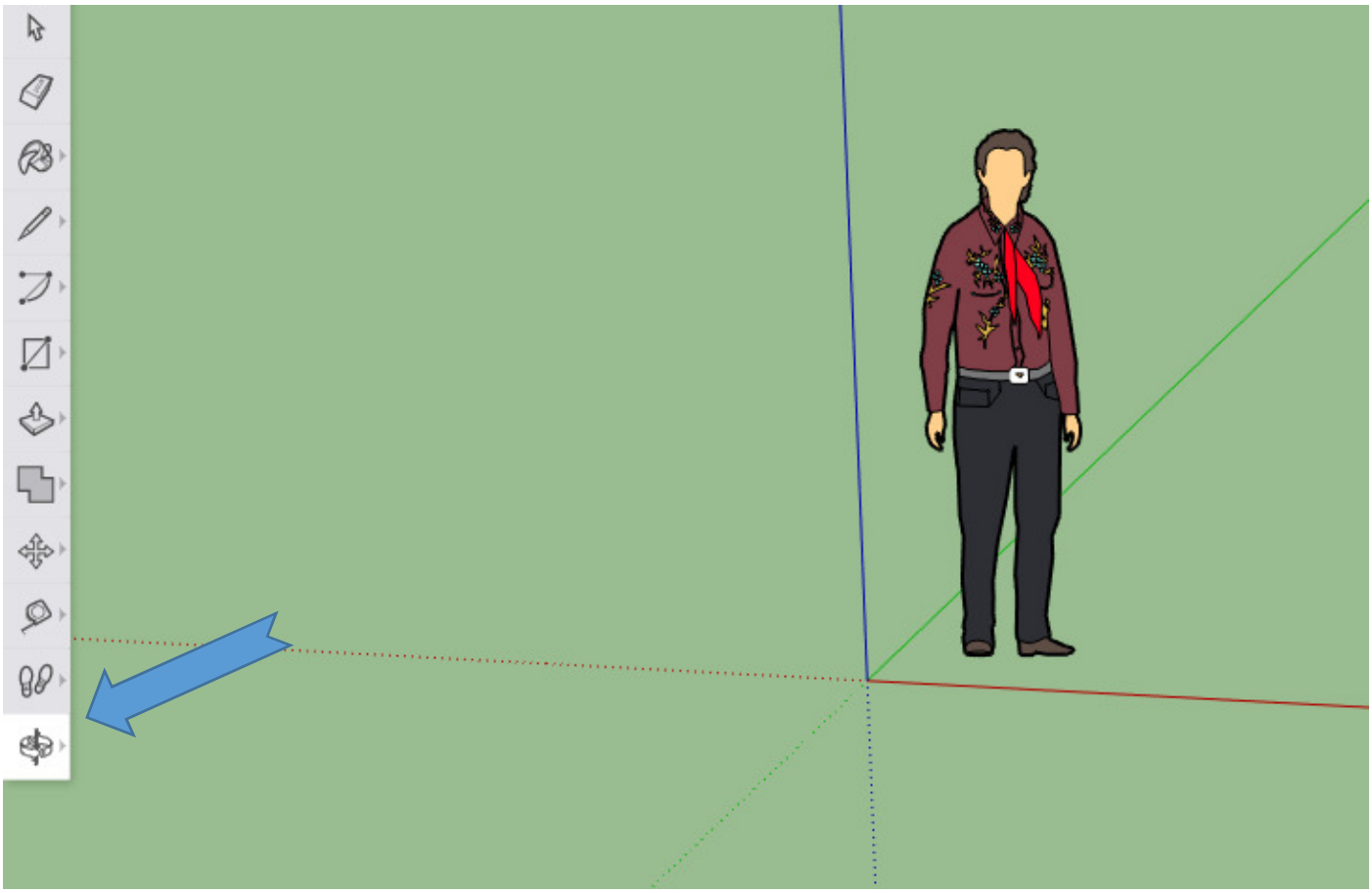
Go to Sketchup for schools

You should be able to

1. *Extrude a rectangle to create a cuboid*
2. *Draw a circle on the face of the cuboid and push it through to make a whole*
3. *Draw overlapping shapes on the face of the cuboid and use the eraser to create a new outline that can be pushed/pulled*
4. *Use the offset to create the same shape inside of a shape*
5. *Use the two point arc and a rectangle to create an arched door shape on the face and using the offset tool and eraser, extrude a covered archway.*
6. *Draw a perpendicular line and complete a triangle to extrude a triangular prism*
7. *Use a rectangle and drawn diagonals and the move tool to create a square based pyramid*

View controls



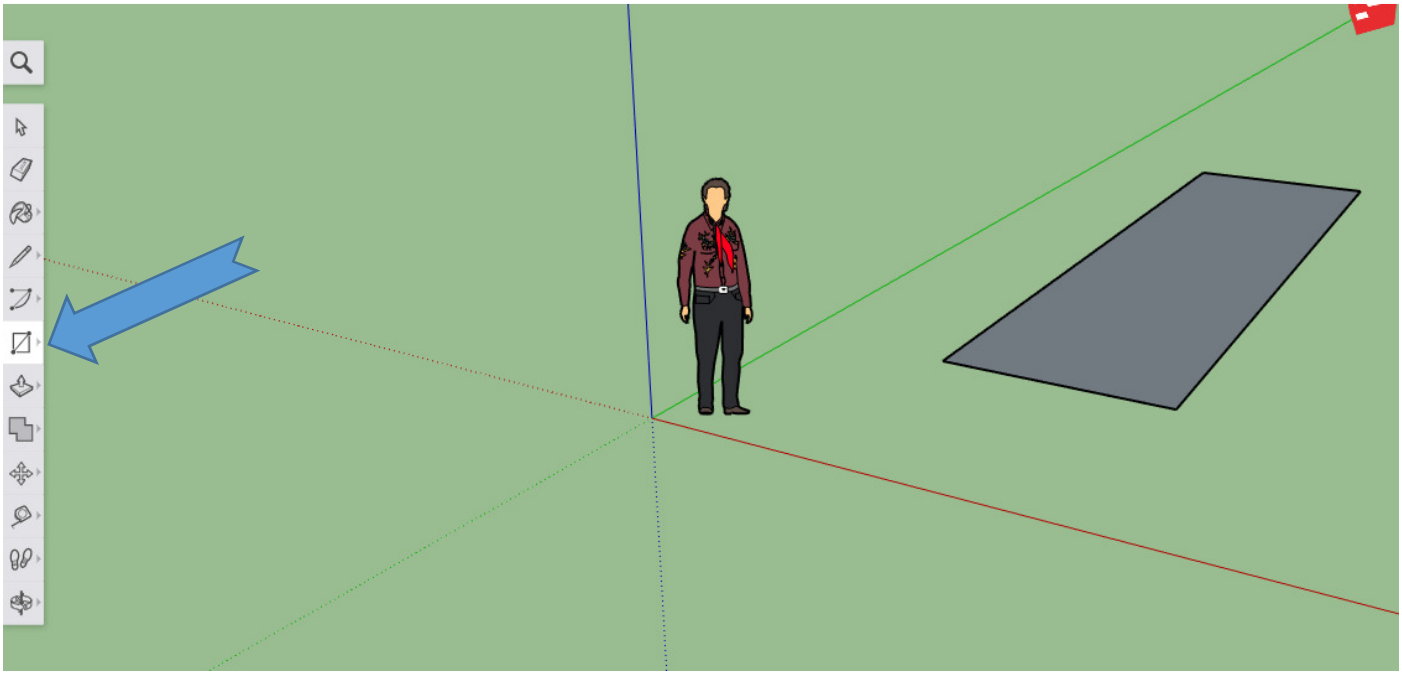
Use the orbit control to whizz around the axes

Clicking on the control, the hand moves the view left and right and the third control is zoom. Don’t worry about the others.

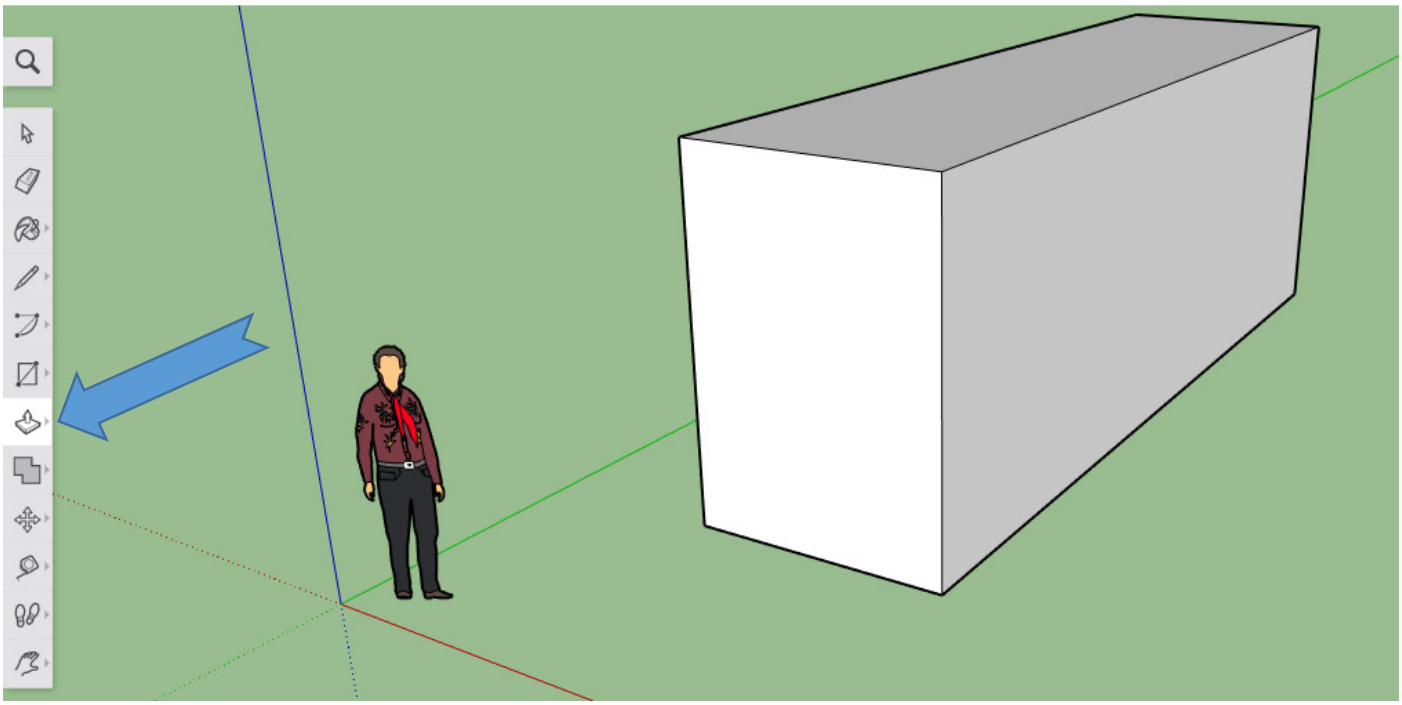
Have a go!

Extruding a shape

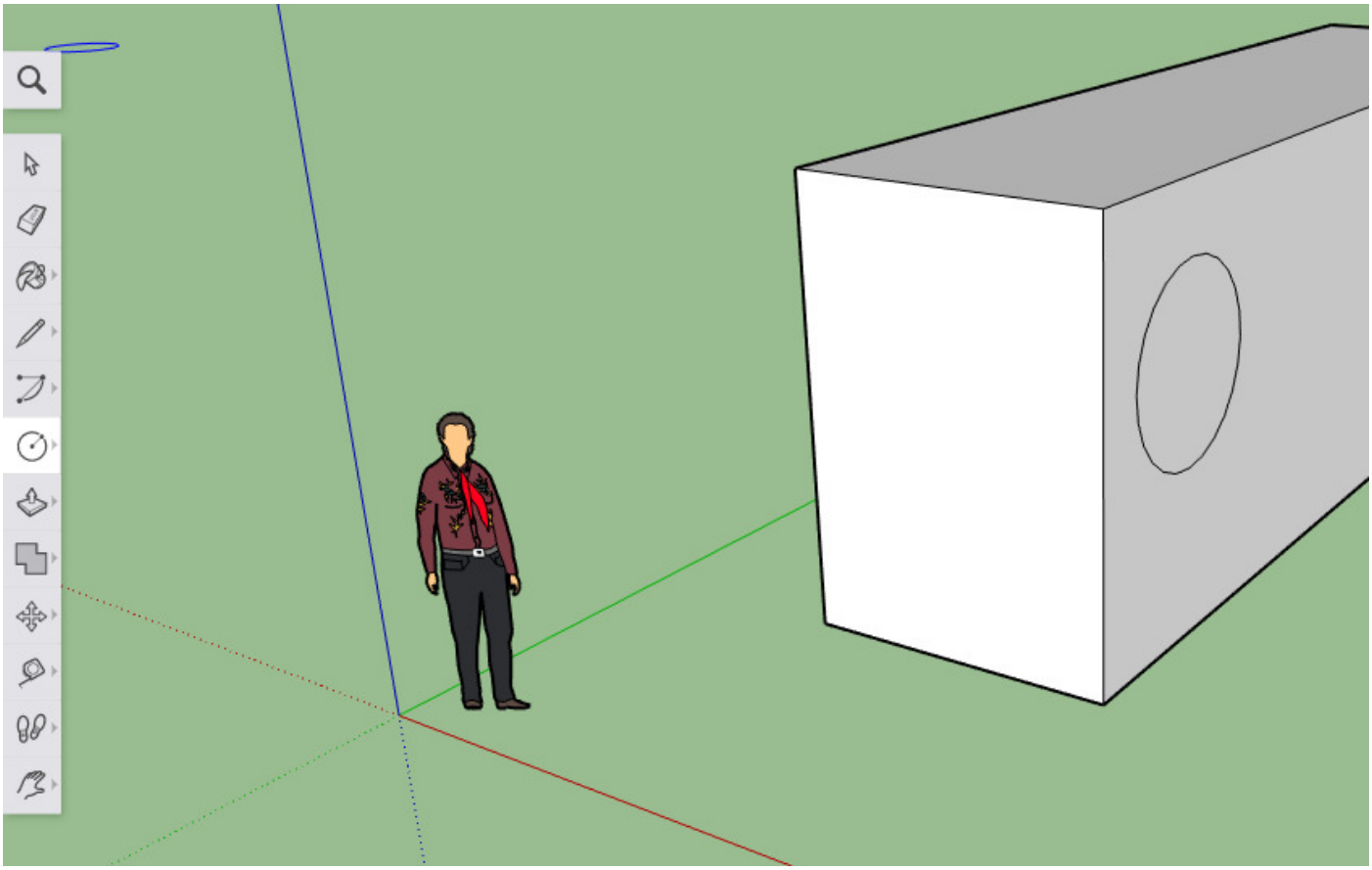
Draw a rectangle. It will be blue as it is drawn to show that it is on the ground



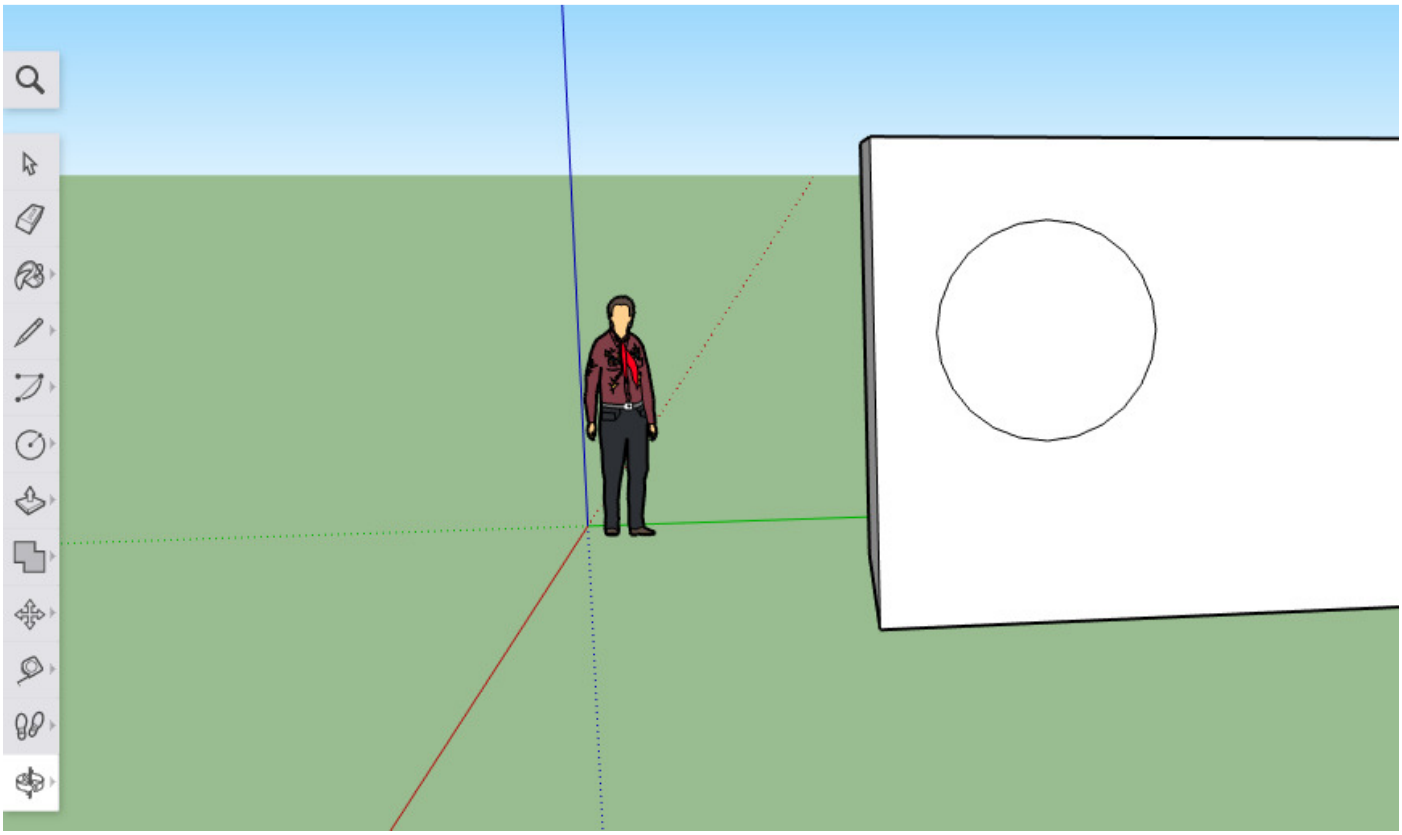
Extrude the shape



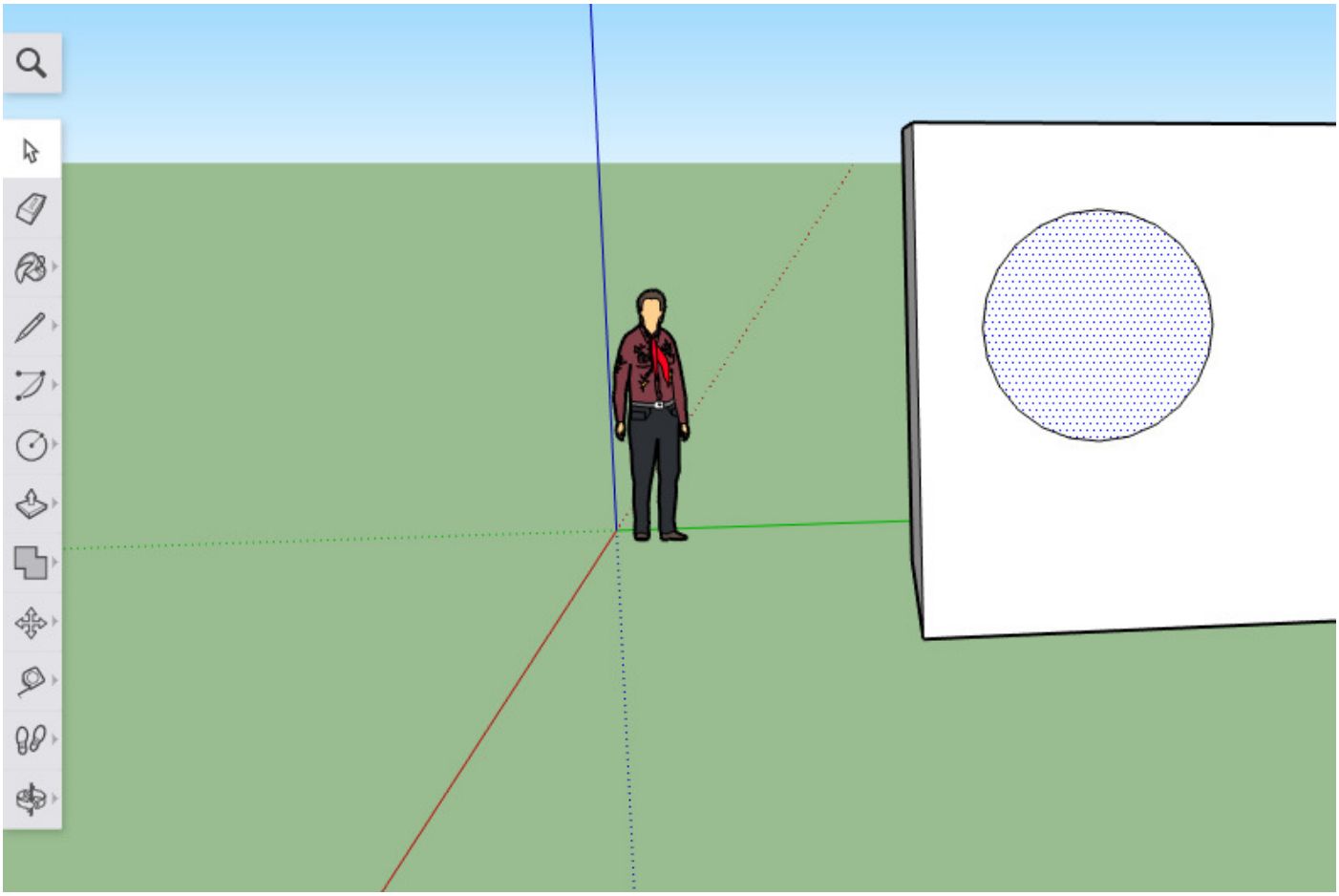
Now click on the rectangle tool again and choose circle and draw on the side of cuboid



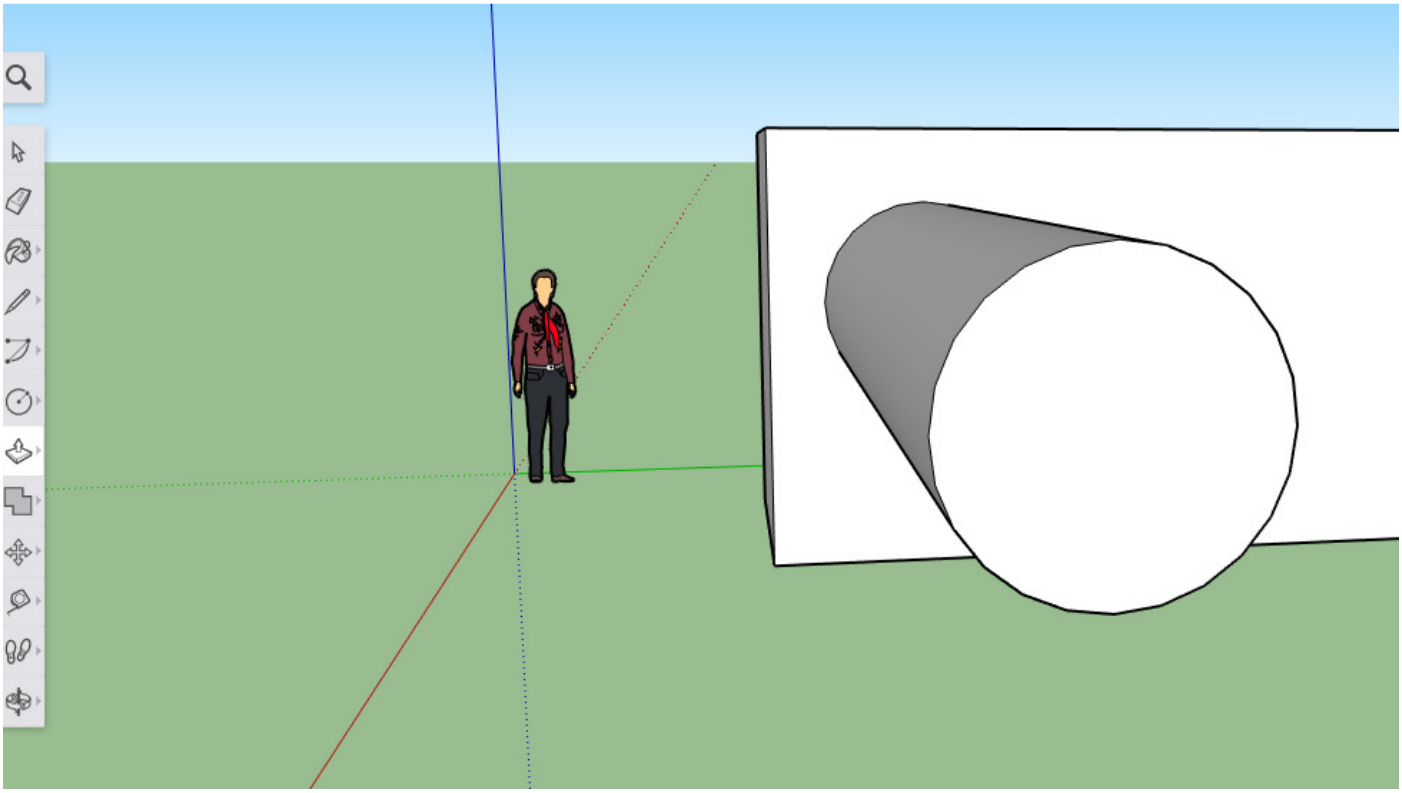
Use the orbit to rotate the view so that you can see the circle face on.



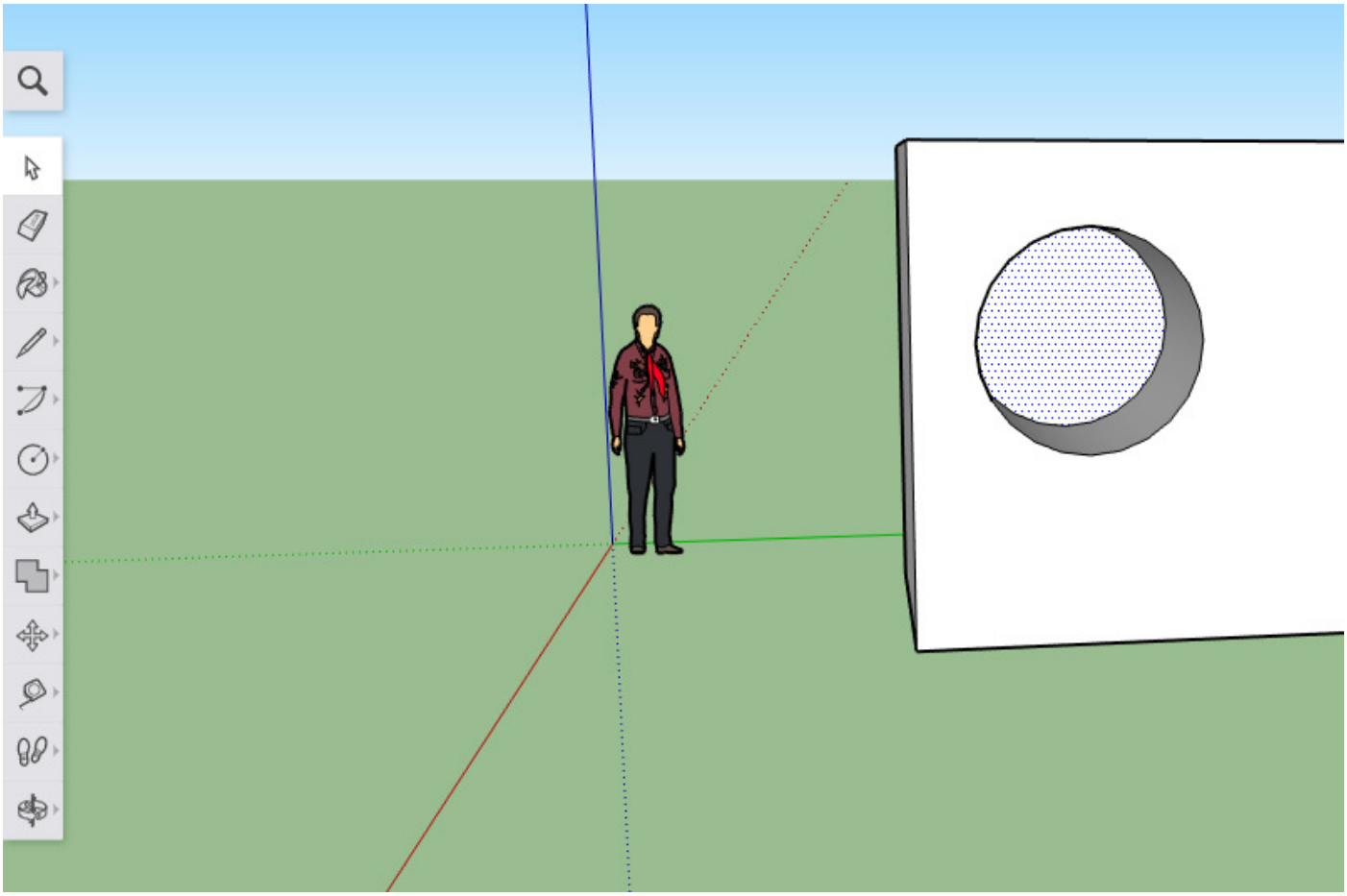
Use the arrow select and click on the circle. The dotted part of the model is the part selected.



Now extrude the shape using the push/pull tool. It can be pulled…

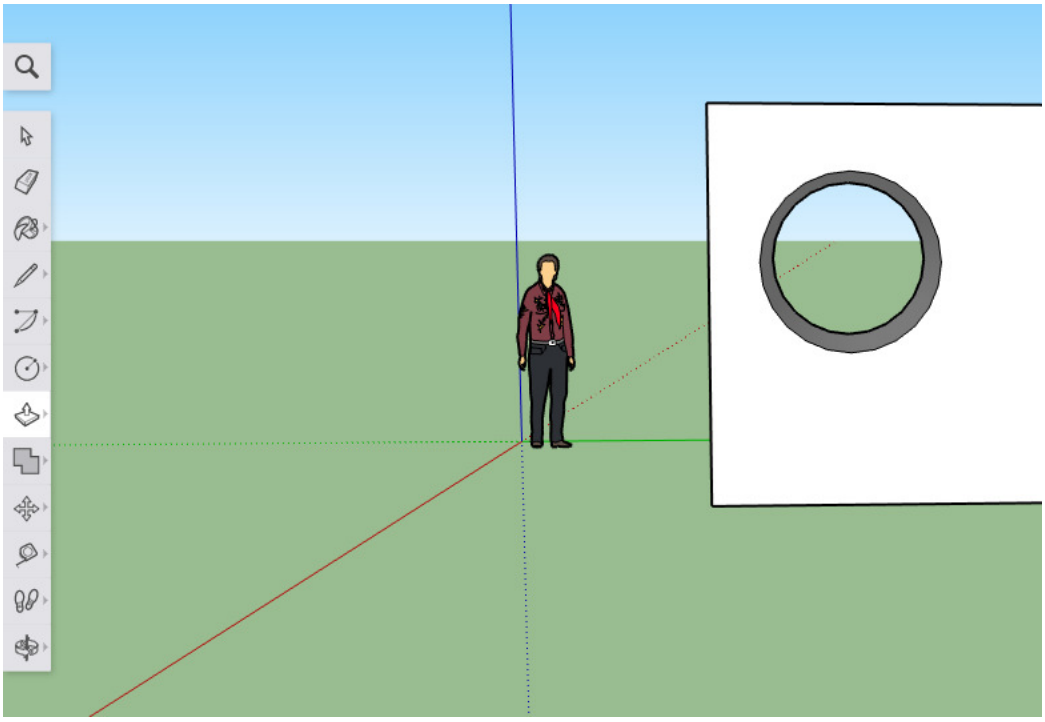


… and pushed



Push it slowly. When it says “on face”, you will have pushed a hole in the cuboid. If you carry on pushing, you will push the shape out the other side. The challenge is to make a hole.

If you make a mistake, use **Undo** (use the arrow on the bottom left)



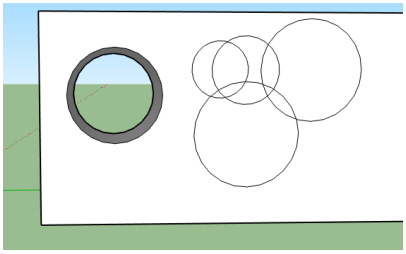
Have a go at creating cuboids and making holes!

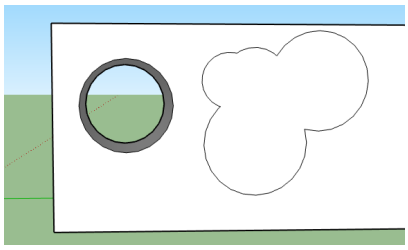
Making more interesting shapes

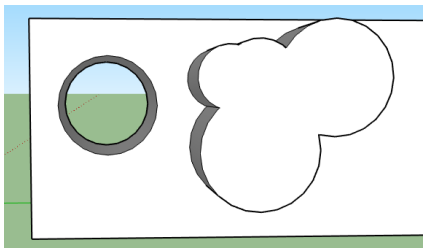
Draw overlapping circles.

Rub out the lines in the middle.

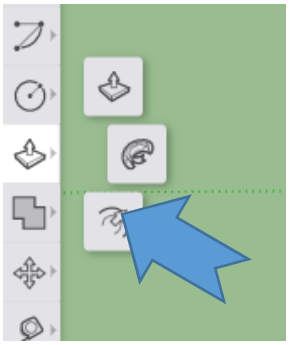
Extrude the new shape.





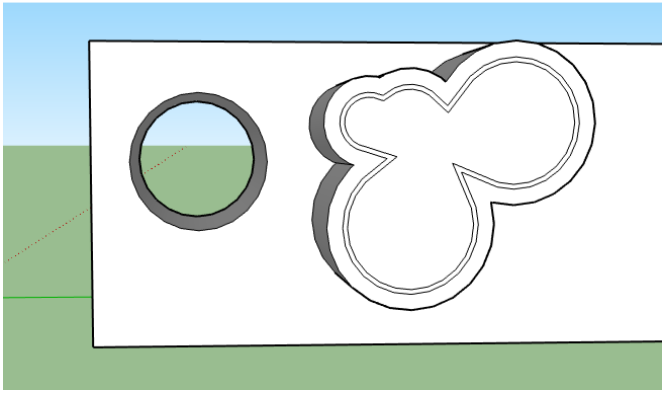


Select the offset tool. Press push pull and select the bottom tool. The middle looks similar – they are easily confused.

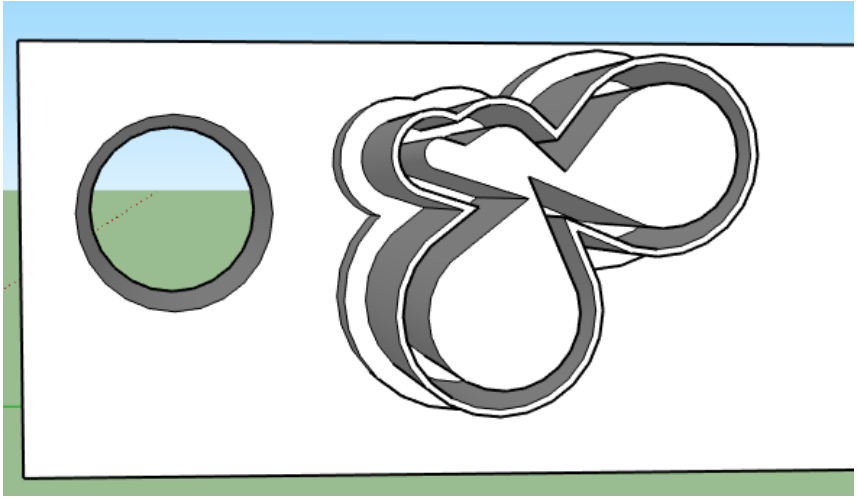


Now use the **offset** function to create a smaller version of the shape inside the shape.

The picture shows it done twice:



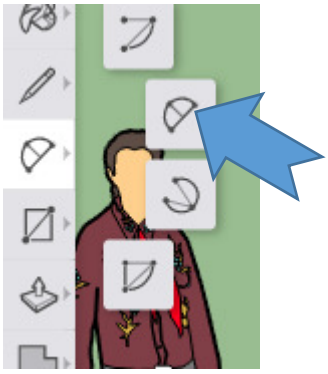
You can now use push/pull to extrude different parts of the shape:

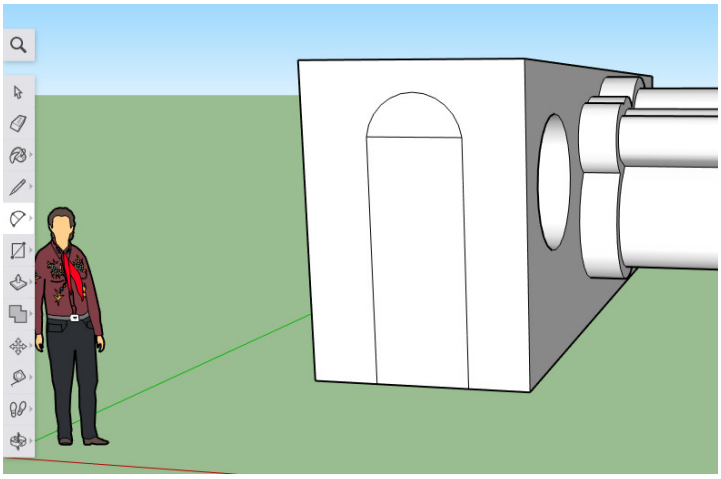


Creating an arch

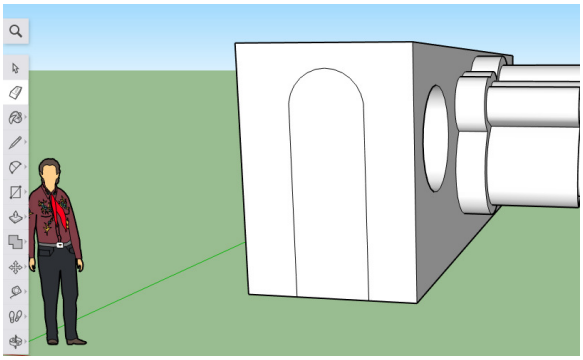
Draw a rectangle then use the arc tool to draw a semi circle on top. The arc tool works by clicking where you want one end of the arc, clicking where you want the other end, then sliding to the middle to pull the arc up.

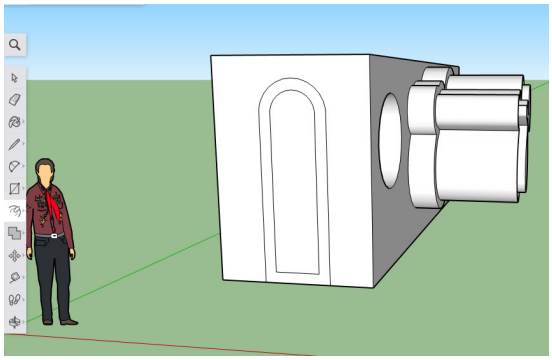
The tool needed is the second arc tool – the 2 point arc.



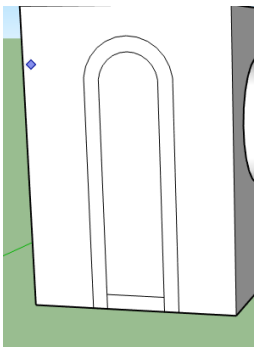


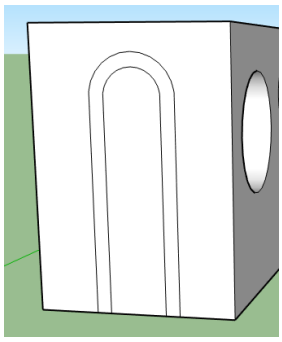
Now rub the line out. Then use the offset to create as follows.

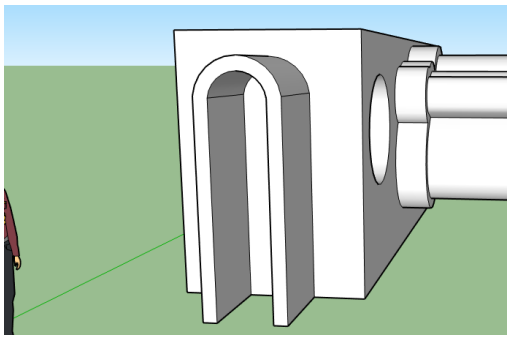




Extruding this shape will leave a step. To avoid this, use the pencil to draw lines to the ground, then rub the parallel line out, then extrude the shape as follows:

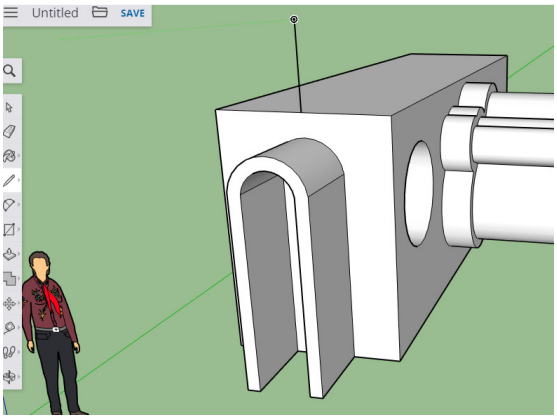




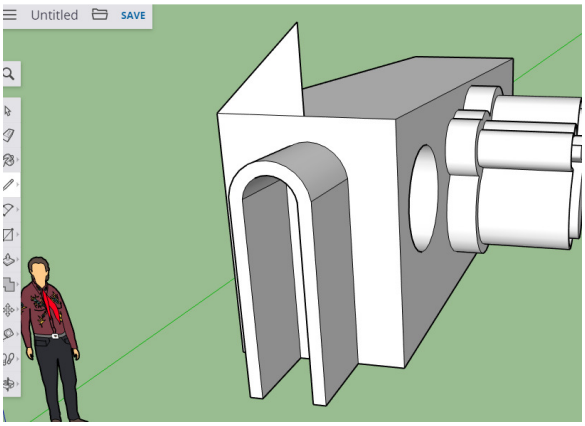


Creating a wedge roof

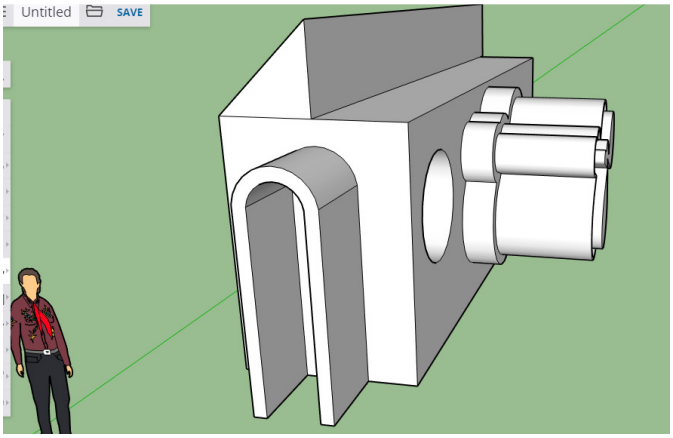
Draw a vertical line. It will be vertical if it is blue. If it is not vertical, bad things happen. If you point to the top edge of the cuboid, a circle and message will appear when you are at the midpoint.



Draw another line to create a triangle.

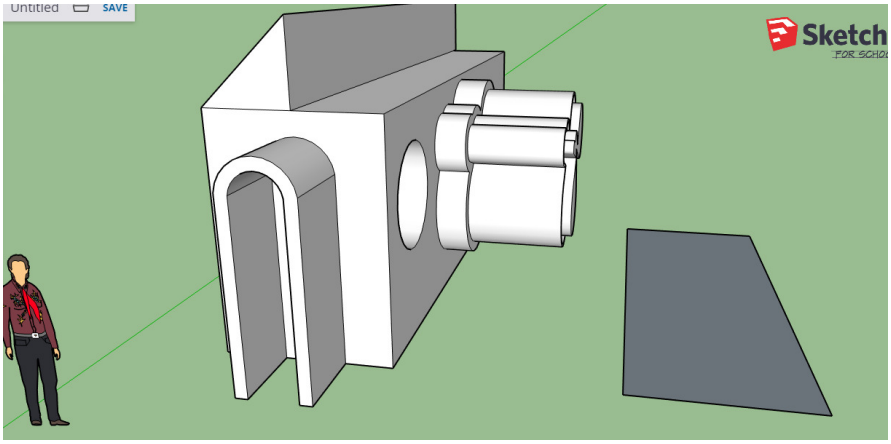


Use push/pull to extrude,

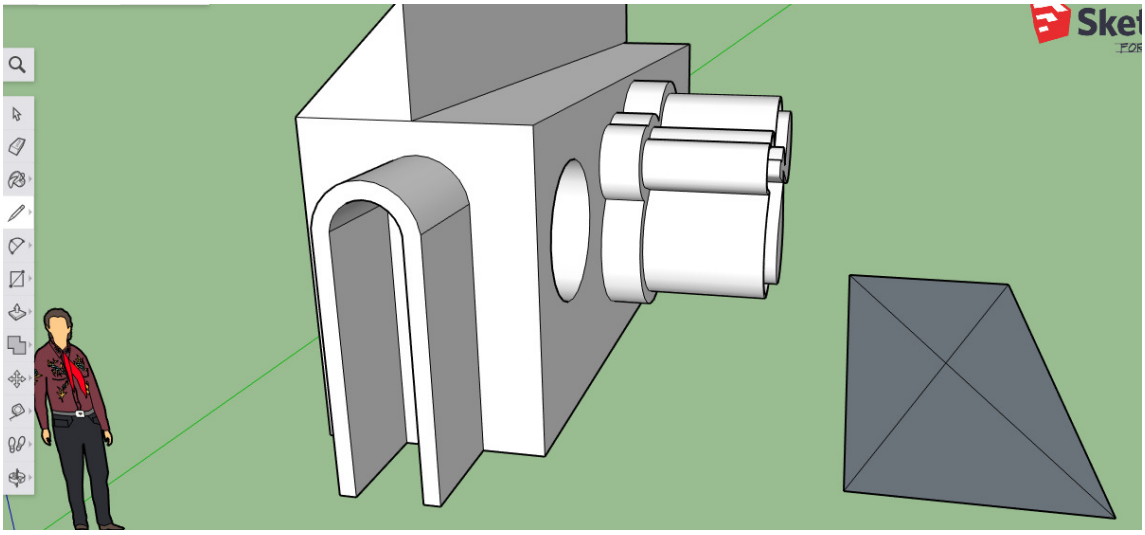


Creating a pyramid

Draw a rectangle



Use the pencil to draw diagonal lines



Use the **move** tool to pull the centre up into a pyramid. Note that a line will appear as the pyramid is pulled upwards. If it is blue, it means it is being pulled straight upwards (ie parallel to the blue axis line). If it is not blue, you will get a wonky shape.



