FIGURE 2. Math 6 – Build a Robot Project

Build your own cardboard robot using tape and scrap cardboard from around your house (cereal boxes, etc).

Project Goals:

1. To build a robot, use materials from around your house.
   a. In your design, include at least one of each shape
      i. 2D shapes – rectangle, square, triangle, parallelogram, trapezoid
      ii. 3D shapes – rectangular prism
   b. When you add decoration to your robot include the following types of angles in your design
      i. Acute, obtuse, reflex, straight, right
2. To calculate the perimeter, area, and volume of each shape
3. To identify types of angles
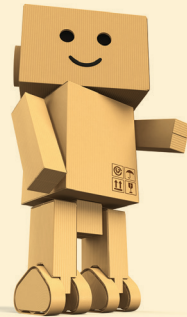
Materials Needed
Cardboard, tape, ruler (cm)

Project Timing
This project should take between 2-3 hours to complete.

Learning Goals to Explore

Curricular Competencies	Content
• I can explore mathematical concepts through play and inquiry	• I can calculate perimeter • I can calculate area of a triangle, parallelogram, and trapezoid • I can calculate volume • I can identify various types of angles

Either take a photo of your robot, or sketch your final design. Identify where on your robot are the trapezoid, parallelogram, triangle, and 5 types of angles:

Evidence of your work:

Math Concept Evidence	Drawing of concept (include robot measurements)	The Math (using the measurements from your robot)
Perimeter of a triangle		
Area of triangle		
Area of trapezoid		
Area of parallelogram		
Volume of rectangular prism		

Self Assessment Criteria

Learning Goal	I'm Starting to Get it	I Am Almost There	I Got It!
I can calculate the PERIMETER of a triangle			
I can calculate the AREA of a triangle, parallelogram, and trapezoid			
I can calculate the volume of a rectangular prism			
I can identify the 5 types of angles (acute, right, obtuse, straight, reflex)			