

**GOAL:** Design a single room to scale.

### **CLASSWORK DETAILS DAY 1**

**How many rooms do we measure out in the hall?** One for each team member.

**How do we complete the measurement part of this activity?**

- Use a meter or yard stick to measure all the parts of the room. The goal is to measure everything you need to be able to redraw the room without looking at it.
- Create this “rough copy” on computer paper or on the provided paper (not on graph paper). This rough copy is NOT drawn to scale. It should fill up paper with things spread out enough that they are easy to see.
- Round all your measurements to the nearest 3 inches (ex. 5 ft. 6 in. OR 2 ft. 3 in.).
- Record the name of the room you are measuring (ex. KITCHEN 1).
- Measure the outside of the room first.

**How do we complete the scale drawing part of this activity?**

- Choose who will draw each room from the hall using your rough copy.
- Draw your final copy on graph paper using a ruler.
- Use the scale  $\frac{1}{4}$  inch = 1 foot . Since each block is  $\frac{1}{4}$  inch , one square = 1 foot.
- See your packet for the symbols to use for items such as toilets, sinks, refrigerators, etc.
- Write the scale on your final copy.
- Do not include any measurements on the final copy.
- Make your final copy professional. Include your name.
- Start by drawing the outside of the room.
- On your final copy, write both the *real-life perimeter and area* of the room.

### **HOMEWORK DETAILS DAY 1**

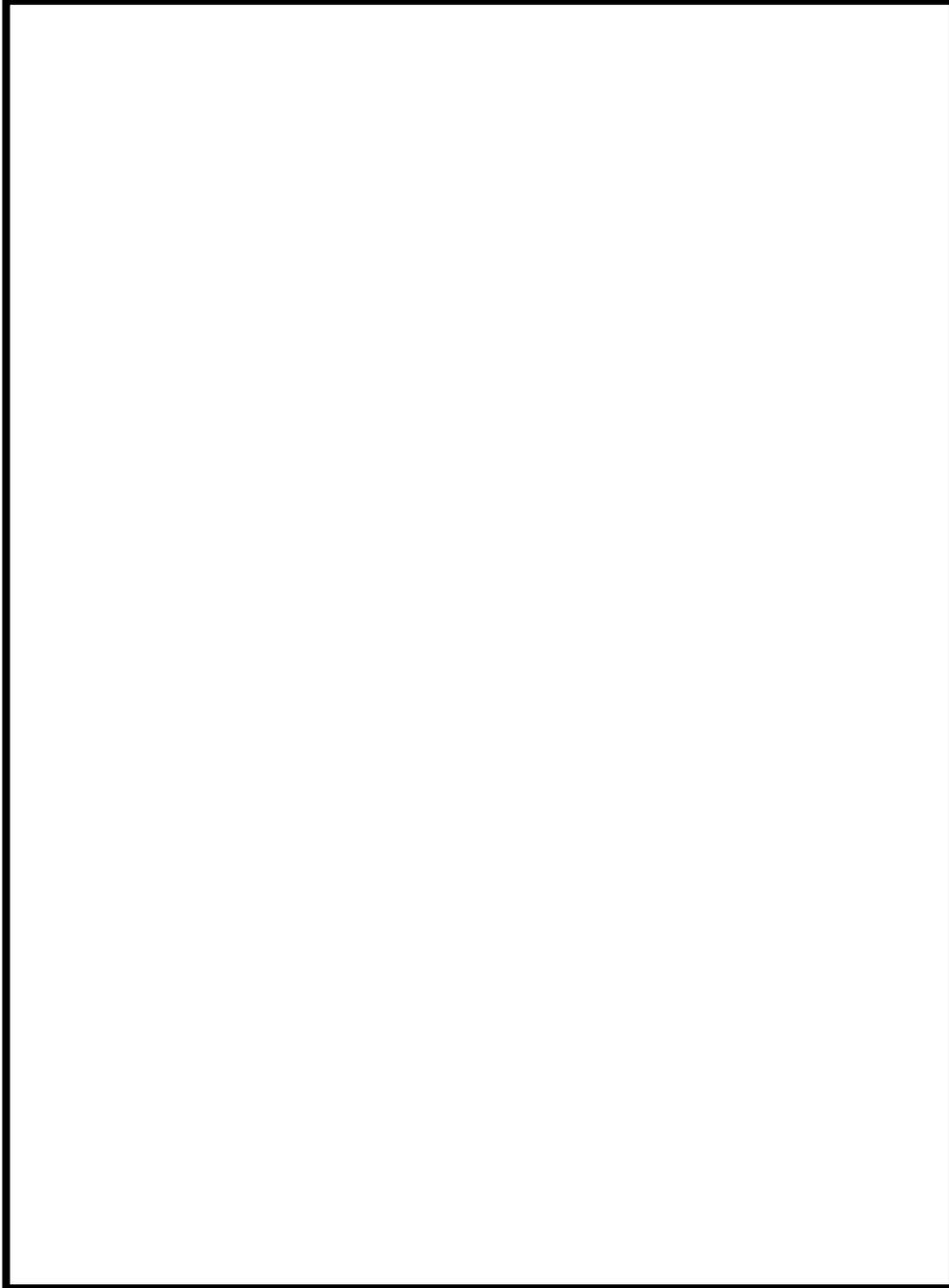
- Choose one of the following:
  - **Create a scale drawing of either your kitchen OR your master bathroom**
  - **Create a scale drawing of the outside of Durham Intermediate School**

If you choose a room, complete the exact same steps as we did at school. You need to include all items in the room that are permanently placed (sink, dishwasher, toilet, bathtub, range/stove, countertop space, etc.). You do NOT need to include the following items, but you can if you wish: lights, outlets, fans, and wall thickness. Determine *the real-life perimeter and area of your room*.

If you choose DIS, you will need to access Google Earth. Complete the rough copy page already provided for you along with your final copy. You only need to worry about the outside of the building, not inside rooms or features. Determine *the real-life perimeter and area of DIS*.

**KITCHEN #**

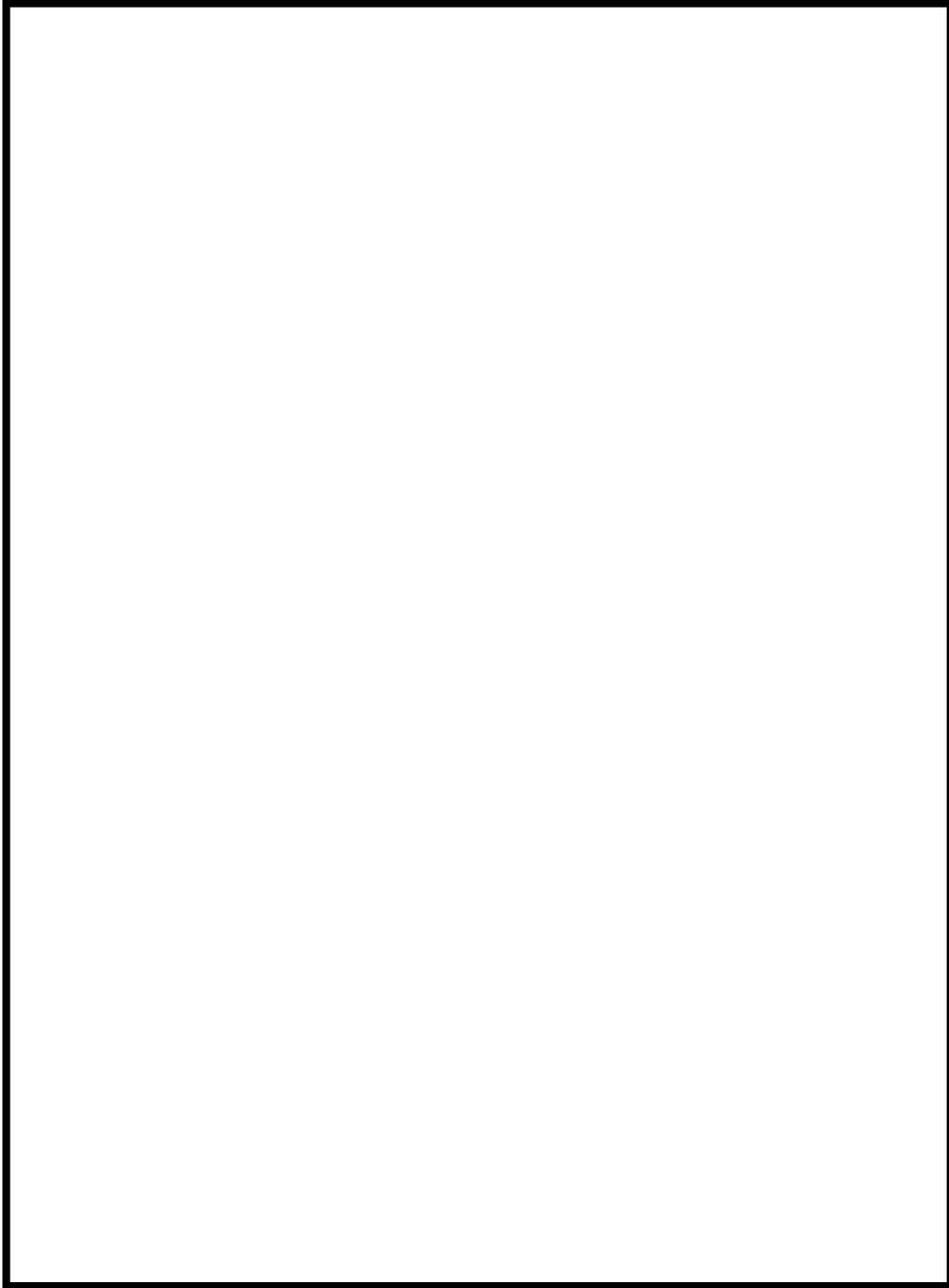
8 feet



10 feet

**BATHROOM #**

5 feet



8 feet

Use the diagram below along with Google Earth to determine the actual length of each wall. Label the length of each wall on the diagram below. Then create a scale drawing on graph paper of Durham Intermediate using the scale  $\frac{1}{4}$  inch = 15 foot . Compute the real-life perimeter and estimate the real-life area of the building (based on an approximate rectangle).

