

Grade Level: 6 - 7

Curriculum: Explorations, ADST

Title of Lesson: Graphic Communication: Floor Plans

Learning Goals/Objectives:



- Complex tasks require the acquisition of additional skills
- Design can be responsive to identified needs

Materials Needed:

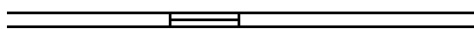
- Pencil
- Eraser
- Ruler
- Paper (grid paper is ideal but not essential)

Activity Instructions: (Step by Step)

- The final type of graphic communication we will explore is all about sharing information about physical spaces: floor plans
 - These drawings are used by architects to help clients know what the finished layout of a building will look like, they are used by engineers to help calculate the building load to make the building structurally sound, and by the builders who build, plumb, and wire the structure! Pretty useful drawings!!
- A floor plan is an aerial view of how one floor of a building looks without the roof. It includes all of the building's walls (both inside and outside), doors, windows, major appliances (like a stove, dishwasher, fridge, washing machine, etc), other important fixtures (like a bathtub/shower, toilet, sinks), cabinets (like in a kitchen) and can even include smaller details like where the lights are, where the switches are and even where the electrical plugs are!

- Most of these things are drawn as symbols to make it easier to draw and understand:
 - Electrical outlets: 
 - Lightbulbs: 
 - Switches: S
 - Appliances are drawn as a simplified version of the real thing

- Walls are drawn as double lines, because in real buildings, the walls are filled with insulation, wires and pipes!
- Windows are drawn within the walls:



- Doors are drawn in the open position, with a curved line to show the door's range of motion



- Choose one room in your home to draw the floor plan of. Be sure to include any of the special symbols to represent the electrical outlets, switches, plugs or appliances! Use the provided example below to guide your drawing.



Extensions (Optional):

- If you've gotten the hang of it, try drawing one entire floor of a building. This can be your home, or a building that you create! Don't limit yourself to just houses, what other kind of buildings could you design?
 - Be sure to think about who would be using the space, and what their needs might be!