

Project Based Learning
Area, Perimeter, & Geometry



BUILD A TINYHOUSE

BEFORE YOU BEGIN...

WHAT IS A TINY HOUSE?

Most people will say that a tiny house is a home with less than 400 square feet of space. Four hundred might sound like a lot, but it is probably only half the size of most classrooms.

Many times, tiny houses are built on wheels. This means they are mobile and can be moved to different locations. A lot of tiny house owners like this because they can live in different areas or even in someone's backyard (as long as it's big enough).

WHO LIVES IN TINY HOUSES?

Anyone can live in a tiny house. It doesn't matter if it is a single person or a family of five. A tiny house is just like any other home, except it's much smaller.

WHY LIVE IN A TINY HOUSE?

1. It is much cheaper than buying a larger home. Many people don't want to have large mortgages or monthly payments, so a tiny home fits their needs best.
2. Many owners don't want a lot of space. A small home is just perfect for what they need.
3. It can be an adventure! It's new, it's fun, and people like the challenge of living small.

BUILD A TINY HOUSE

If you've been watching TV or reading magazines, chances are you have seen a tiny house. These little homes are popping up everywhere! People love them. They cost less than regular homes and they can be moved around. There's even TV shows where buyers pick a tiny home that will fit their needs the best.

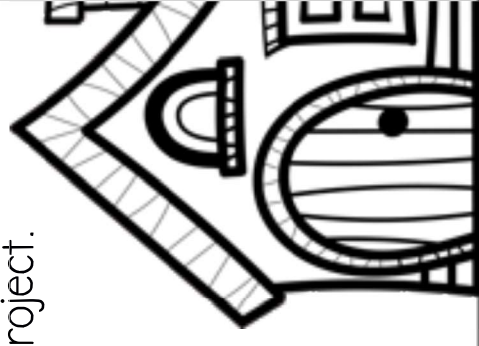
Your city council has been paying attention to the amazing things happening in your classroom. They want to use those skills to build and design a set of tiny houses.

You are being asked to create a tiny house that will be showed off at the Tri-City Realtor Convention. If these houses are a hit, they might choose to build them in town!

This means you'll be responsible for designing and building the perfect tiny house. It will include the layout, picking furniture, and using real-world math skills to finish this project.

Are you ready to build?

Let's go see your To-Do List...



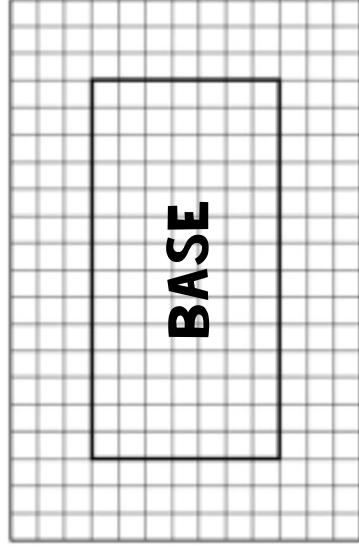
TINY HOUSE PARTS

There are four major parts of the house that you will build and design.

THE BASE

This is where you create the floor plan of the house.

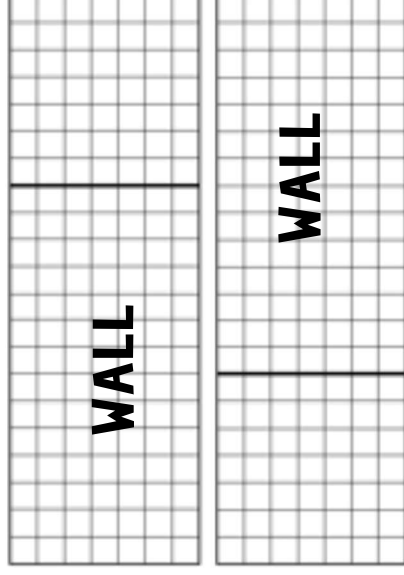
This is a central part of creating the house.



THE WALL, PIECE 1

Each WALL section contains two walls.

They are folded to create house corners.

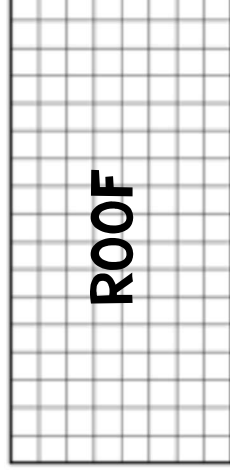


THE WALL, PIECE 2

They can be cut out to create a rectangle that fits exactly around the base of the house.

You will be

designing the ceiling (fans, lights, vents).



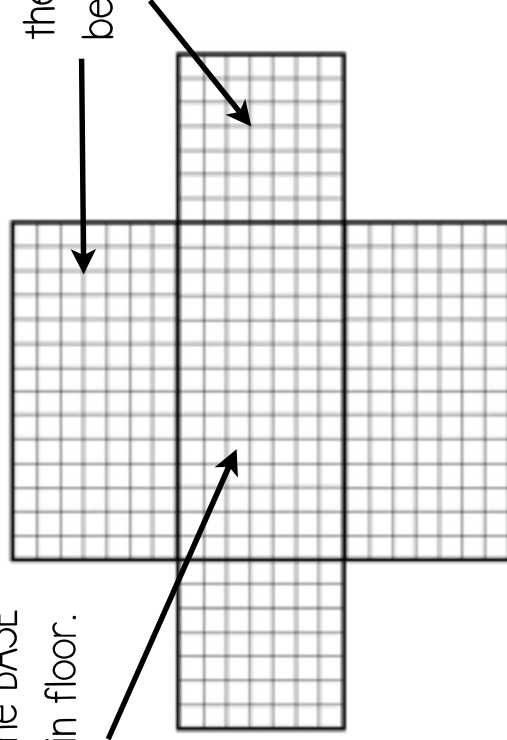
Each of the MAJOR PARTS will be on separate pieces of paper. They can be cut out and placed together to form a tiny house in the shape of a rectangular prism.

ROUGH DRAFT: INSTRUCTIONS

On the following page you will create a rough draft of the house.

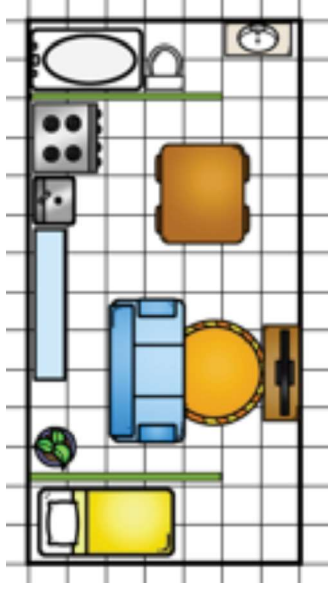
This rough draft will be used as a blueprint and will include all items from the Requirement List. The Requirement List will be included on the page. Check off each item once you have included it.

This is the BASE and main floor.



The house looks like the four walls have been laid down.

A finished wall or base could look like this. Design carefully!



As seen on the previous page.



As you design the layout, you may have to turn your paper so your drawings match up.



Include all the furnishing in your house. **ADD YOUR OWN IDEAS TOO!**
Make it your house!

Refer back to the directions and look at the examples to help you out.

FINAL VERSION: REQUIREMENT LISTS

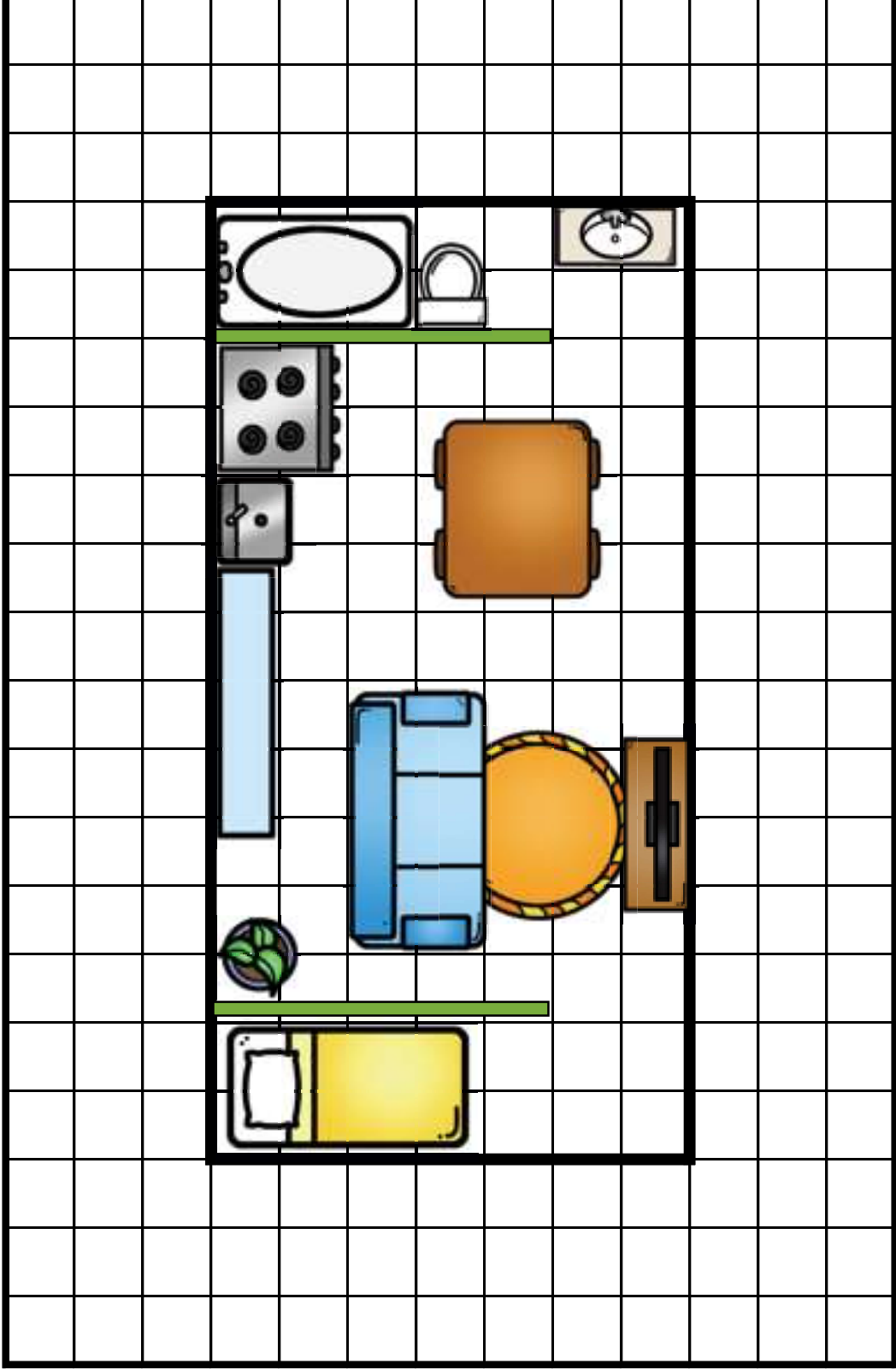
Listed below are all the furnishing elements that must be included inside your tiny house.
Check off each item once it has been added in your house design.

ITEM	COMPLETED
shower or tub	
bathroom sink	
toilet	
bed	
table	
chair	
closet	
desk or side table	
couch/sofa or recliner	
counter	
microwave	

ITEM	COMPLETED
stove/oven	
kitchen sink	
TV or computer	
refrigerator	
front door	
window	
window	
light	
light	
picture/artwork	
mirror	

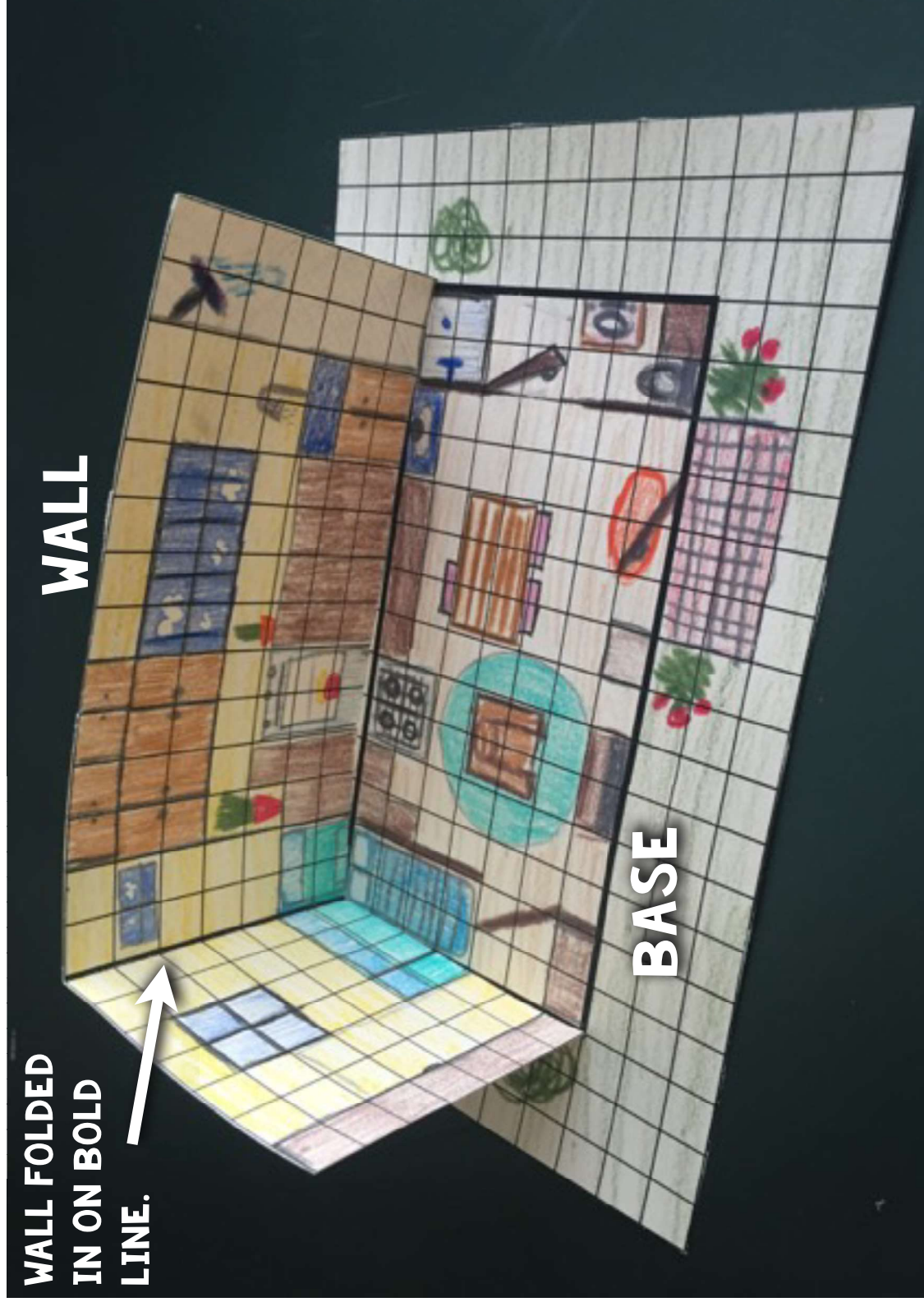
BASE & FLOOR PLAN

EXAMPLE



MAKING A TINY HOUSE

WALL FOLDED
IN ON BOLD
LINE.



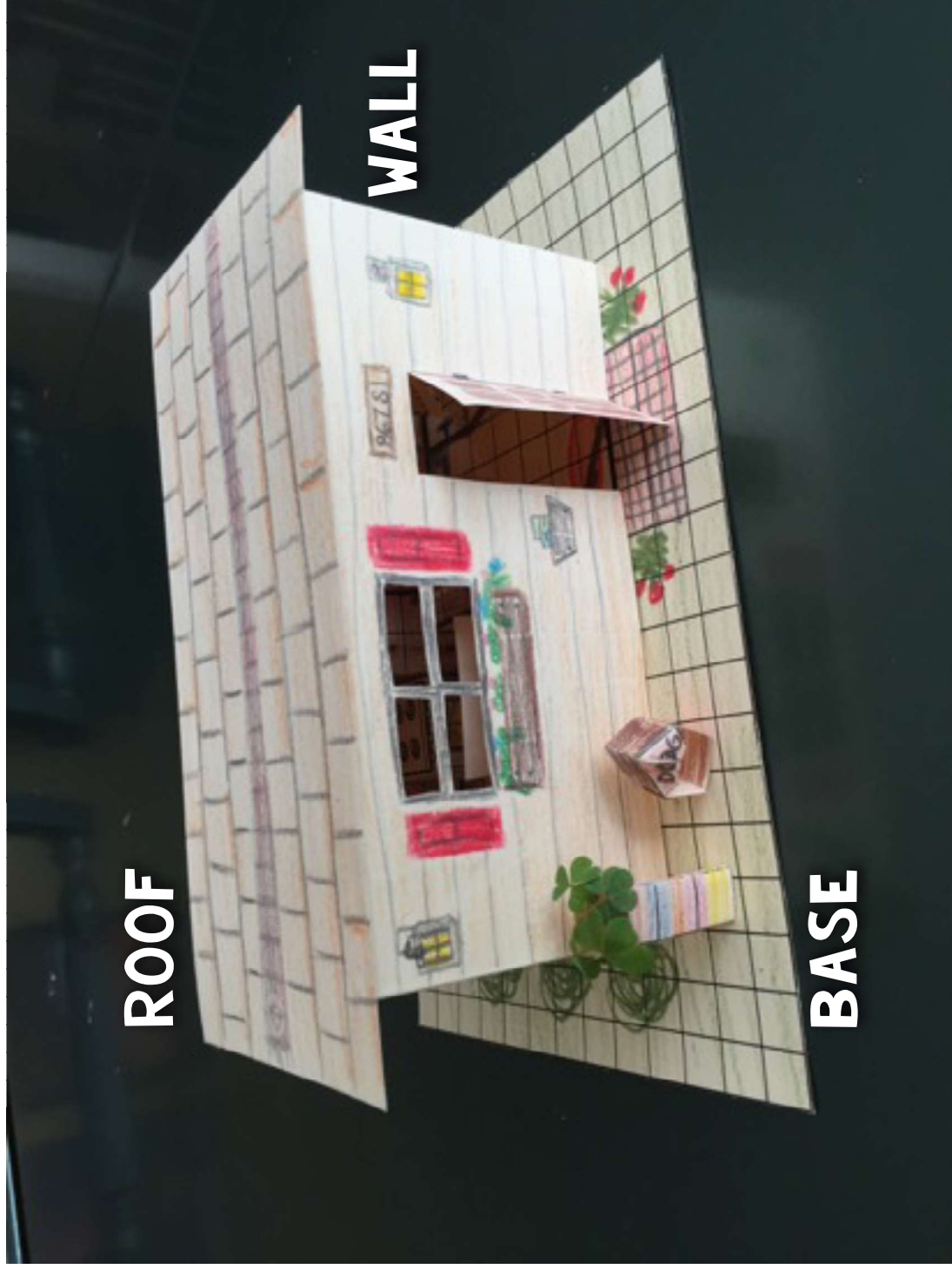
Make sure all the pieces line up with each other.
You won't need to add the roof until the end.

MAKING A TINY HOUSE



This is the same house, but opposite wall side is shown.

MAKING A TINY HOUSE



Designing the outside of the house brings the entire project together.
Crayons and colored pencils are your best choices!