

# BUILD A TINY HOUSE

STAGE 2 PBL



**Name**

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**Class**

3B

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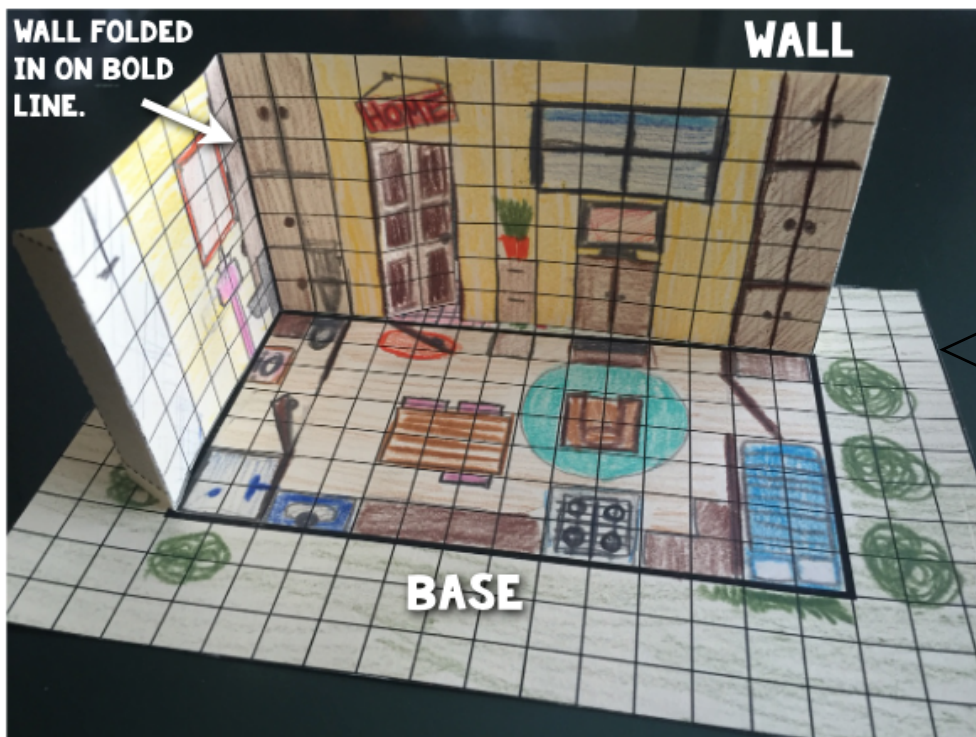
# Before you begin...

## What is a Tiny House?

Most people will say that a tiny house is a home with less than 200 square metres of space. Two 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.

## Why do people live in Tiny Houses?

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.



This is  
what  
you're  
aiming  
to  
create

# Brief Project Overview

<b>Goal</b>	Create a tiny house that meets the needs of your client.
<b>Project Summary</b>	Help! Your teacher desperately needs a new home. In this project, you are going to design and consult with your teacher to create a house that meets their budget, needs and personal preferences.
<b>What will you be doing?</b>	<p>You will be:</p> <ul style="list-style-type: none"><li>• Reading a blurb about your teacher's needs</li><li>• Creating blueprints of a tiny house</li><li>• Creating a 3D version of the house</li><li>• Writing an informative and persuasive text to describe and sell the home</li></ul>
<b>How long do you have to complete this task?</b>	<p>You will have 5 weeks to complete your proposal.</p> <p>The project has been divided into 15 tasks for you to complete (three tasks each week).</p>
<b>We are learning to:</b>	Use our critical thinking, writing, problem solving and mathematical skills to create a home that is functional.
<b>This is because:</b>	It will help you understand the importance of the maths and English in your everyday lives.
<b>What skills do I need to use to be successful?</b>	<p>This project will involve you using a range of skills including:</p> <ul style="list-style-type: none"><li>• Reading and comprehension</li><li>• Writing</li><li>• Addition and subtraction</li><li>• Multiplication</li><li>• Money skills</li><li>• Area and perimeter</li><li>• Measuring</li><li>• Visual Arts</li></ul>

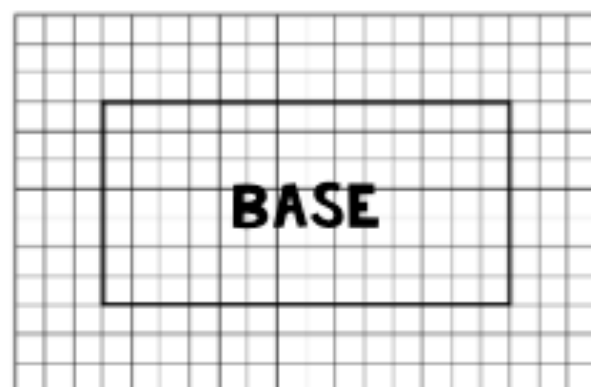
# TINY HOUSE PARTS

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

## THE BASE

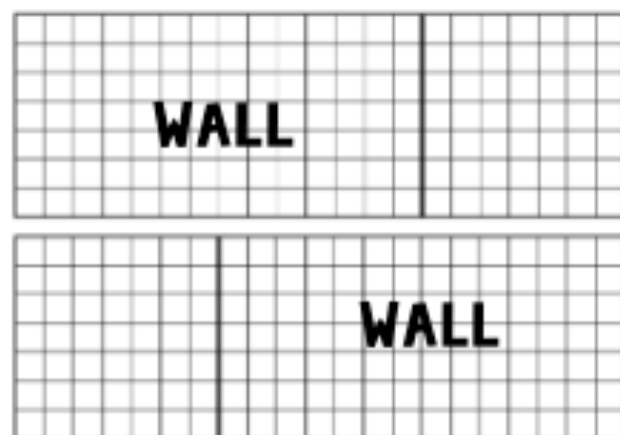
This is where you create the floor plan of the house.

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.



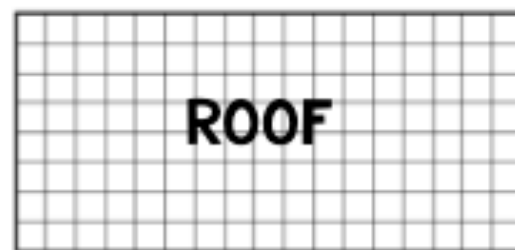
## THE WALL, PIECE 2

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

## THE ROOF

The final part 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.



# TINY HOUSE PARTS

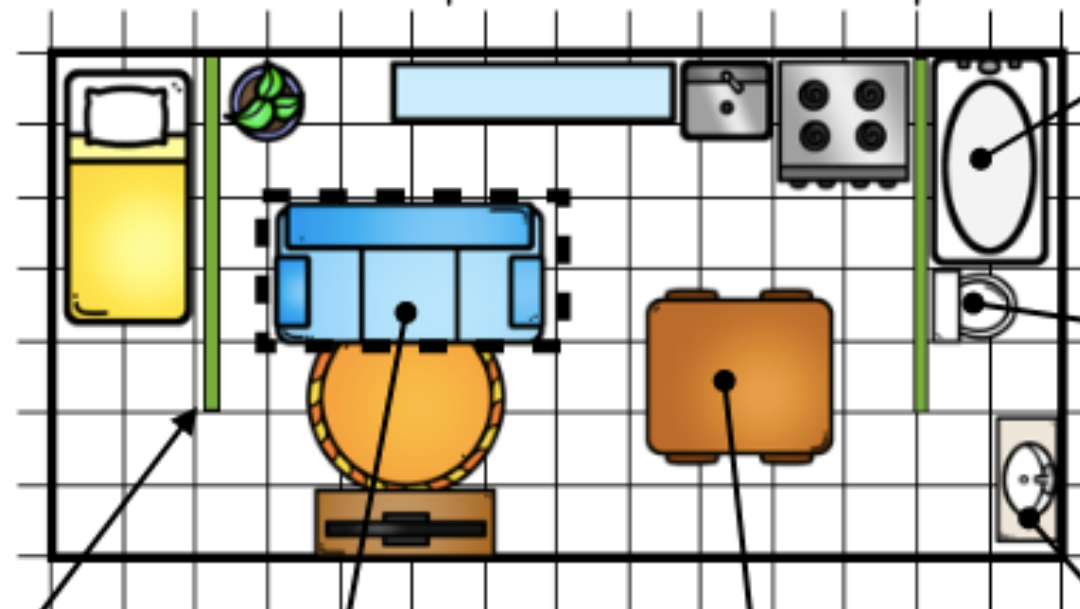
More important things to know.

After you have created the layout, you will have to find the area and perimeter of items in the house. Not all items will fit. Use your estimation skills to get them as close as possible.

You will design the base using a bird's eye view. Imagine looking straight down as you add in the furniture and lay it all out.

You can add your own walls too!

This is an example of a BASE floor plan.



## BATHTUB

AREA: 6 square units  
PERIMETER: 10 units

## TOILET

AREA: 1 square unit  
PERIMETER: 4 units

## SINK

AREA: 2 square units  
PERIMETER: 6 units

## COUCH

AREA: 8 square units  
PERIMETER: 12 units

## TABLE

AREA: 9 square units  
PERIMETER: 12 units

# Week 1 Check list

	Task Order	Task	Brief Explanation	Sign and Date
Week 1	First	Directions	Read the project overview, to-do list and tiny house parts carefully. Refer to it as much as you need throughout the project. Ask a teacher if there is anything you don't understand.	
	Second	Read	Read your client's (teacher) needs and create a list of requirements for your tiny house. This will include furniture (such as a bed and a table) and fixtures (stove, sinks, toilets).	
	Third	Blueprint  Write	Create a blueprint or rough draft of your tiny house. You might have to check your client's needs and requirements list to ensure you haven't forgotten something.  Questions for your client.	

## Task 2: Client Needs

Carefully read through the needs of your teacher and write a list of requirements (requirements are things the house will need). As you read highlight sections that are important. Some parts of your teacher's needs will be listed clearly, however, not everything will be (example: if there are 4 people in their family how many beds do you think they will need?). You will need to use your inferencing skills to help you.

Good morning 3B,

I would like a home that is suitable for myself and my partner. I love to cook, chop firewood, explore nature, and of course, spend time with my mischievously fluffy cat, Lucy. Although a large kitchen would be nice, a smaller, sleeker and more modernised look will do just fine. However, a full-sized fridge and freezer is a must. The bathroom doesn't need to be big. The essentials will suffice. Lucy is very bougee; she lays in the sun for most of the day. She also needs her own bed somewhere up high so she can see what's going on.

I really like the idea of indoor-outdoor living. Large, bi-folding doors that connect the living area to an outside entertaining space would be great. Whatever you choose to design, ensuring that there is plenty of natural light should be an important factor. A fireplace would be great, along with an area to stack the wood.

I'm somewhat of a minimalist. Personally, I could store all my clothing into a medium-sized bag. My partner, on the other hand, can most definitely not. She has a lot (and I mean a lot) of clothes. Therefore, a large walk-in wardrobe is a high priority. Finally, a garage gym would be ideal. If that's not possible, a wall-mounted chin up bar will have to do. While we're at it, I've always wanted a compact wooden sauna. Let's see what you can do.

I prefer neutral colours, such as white, grey and black, mixed with a generous amount of lightened timber.

Thank you for helping me build my home! Good luck.

Mr Buffon

## Task 2: Requirements

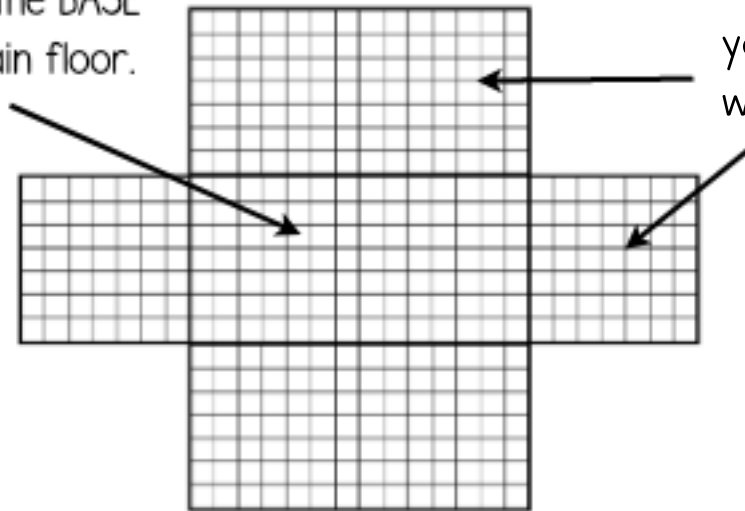
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# Task 3: Blueprint Instructions

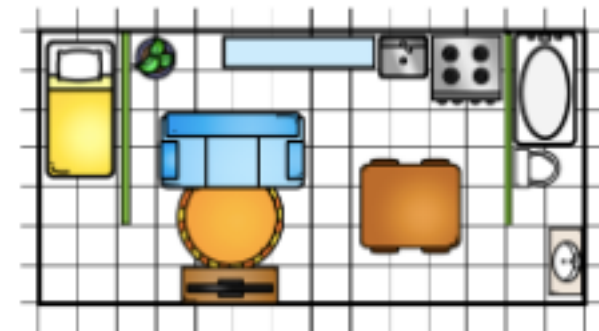
This is only a draft or a blueprint. You need to include all items from the requirement list. Tick off each item once you have included it. Remember a tiny house is small, you may need to get creative about some items. Can an item act as 2 things instead of one? (eg computer desk and dining table)

This is the BASE  
and main floor.



If you assembled  
your house the net  
would look like this.

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



As seen on the previous page.

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

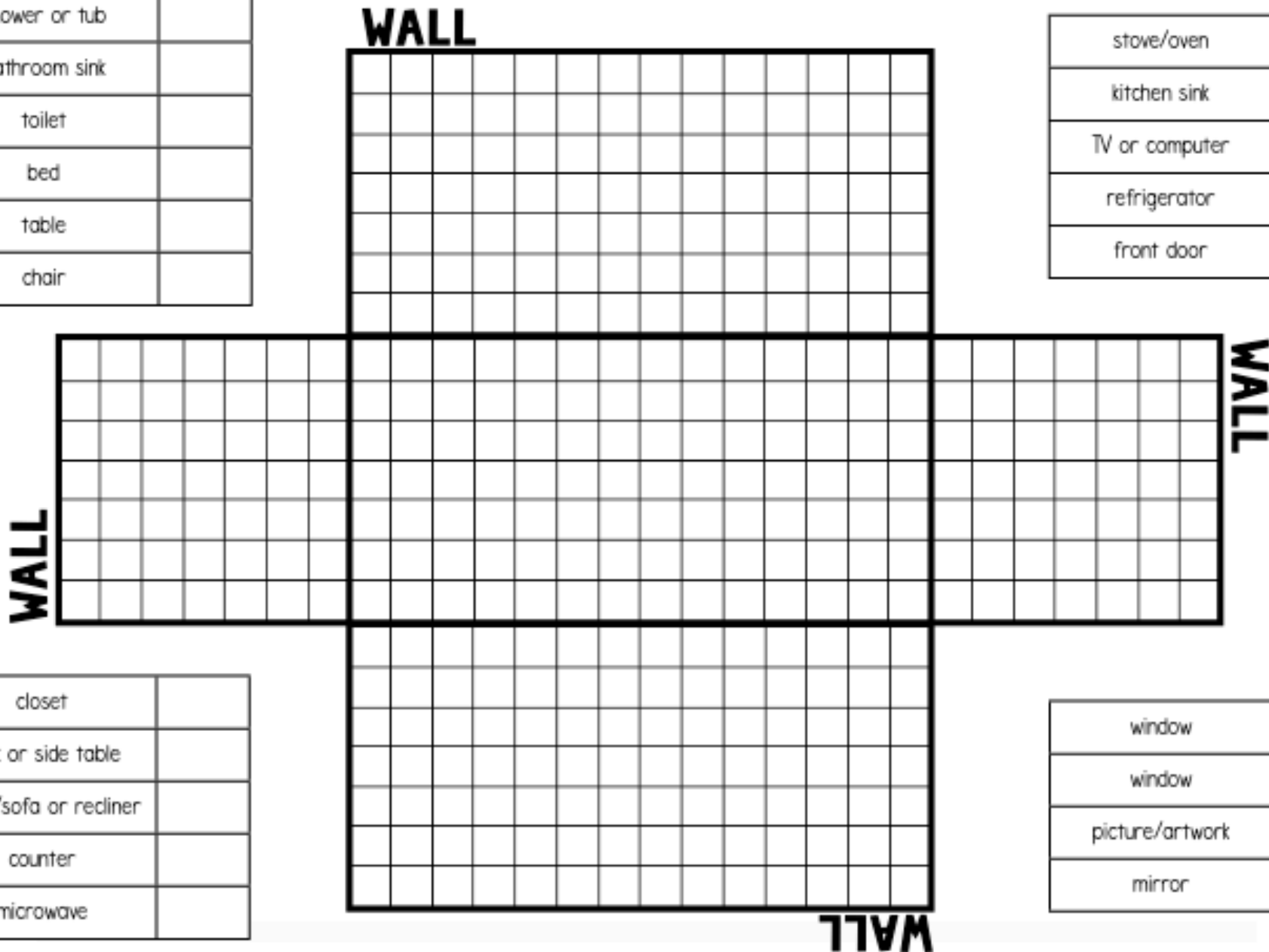


Refer back to the  
directions and look  
at the examples  
to help you out.

## Task 3: Blueprints (Some requirements have been included to help)

shower or tub	
bathroom sink	
toilet	
bed	
table	
chair	

stove/oven	
kitchen sink	
TV or computer	
refrigerator	
front door	



closet	
desk or side table	
couch/sofa or recliner	
counter	
microwave	

window	
window	
picture/artwork	
mirror	

## Task 3: Questions

Next week, you will meet with your client, have you come across any problems in your design? Is there something you need clarified? Think of at least three questions you're going to ask your client. *Remember a question starts with a capital letter and ends with a questions mark.*


## Extra-Optional

**If you are interested in learning more about Tiny Homes to help with your project. Here are some QR codes and interesting facts for you.**



