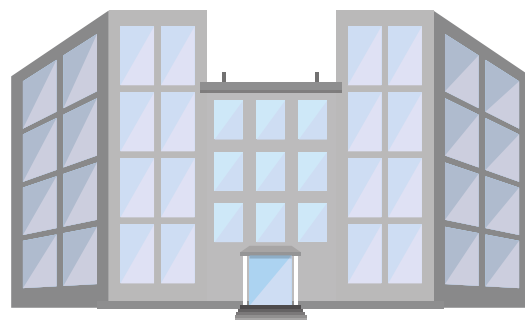




# Levi the Architect: Severe Weather

# Meet Levi!

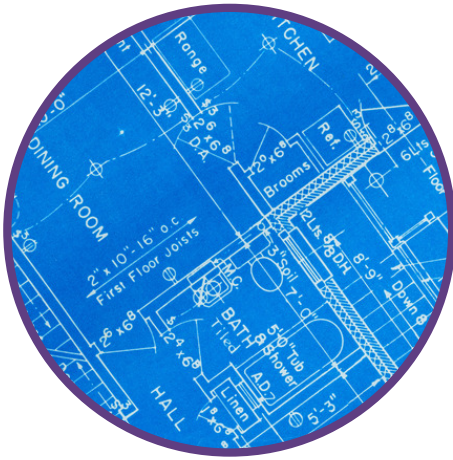


**Hi guys, my name is Levi! I am an architect. An architect designs buildings and structures, like bridges or tunnels.**



# Being an Architect

Here are some examples of what architects do:



## Design blueprints

A blueprint is an image that shows how a building or structure will be built. For example, a blueprint shows where the doors and windows are located in a building. A blueprint also shows where outlets will go so people can charge their iPhones.



## Follow all building codes

A building code is a rule that must be followed when designing a building. For example, there is a building code that states there must be a certain number of doors in a building. That way, there are enough ways for people to exit the building if there is an emergency.



## Understand whether there are natural disasters in an area

A natural disaster is an event, like a flood or hurricane, that can cause a lot of damage. Architects must design sturdy buildings in places where there are natural disasters. That way, the buildings won't get damaged as easily! For example, architects build houses with metal roofs in places where there are hurricanes. When hurricanes happen, there can be a lot of wind. Metal roofs are very strong and won't get damaged by the wind.

# What I am Working On

Right now, I am designing buildings along a river.



Because the buildings will be near water, I need to think about flooding. Flooding happens when water overflows onto land. Flooding can happen after a big storm or a natural disaster, like a hurricane.



# Text Messages

I am going to send out a group text to a few architects I know. I want to get their opinions on how to build in an area where there is flooding.

Hi guys! I am designing buildings in an area where there could be flooding. Do you have any advice on how to design the buildings so they won't get damaged if a flood happens?

Me

Paul

Hi Levi! I am designing an amphibious house. The word "amphibious" means that something can be on land and in water. An amphibious house sits on land and floats in the water. When there isn't a flood, the house sits on land. When there is a flood, the house can float!

Molly

Hey Levi! We designed levees. A levee is a wall that blocks water from entering an area.. A levee is usually made with natural materials, like sand. The sand is packed together to make a giant wall. The giant sand wall prevents water from going near houses!

Wow! You all have great ideas. Thanks so much for helping me!

Me



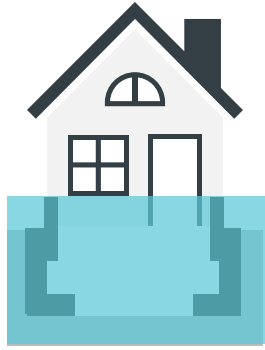
# Comparing Solutions

Now it's time to compare these ideas and decide which one will work best for my project on the river.

## Amphibious Buildings



Resting Position



During Flood

### How it Works:

There is a resting position where the buildings sit on land. When flooding occurs, the buildings lift up. They sit on top of the water on a dock.

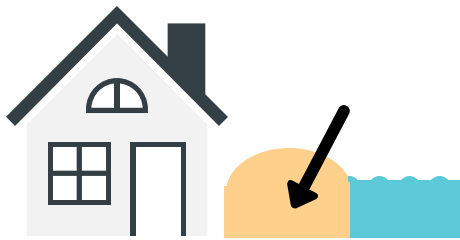
### Pros:

Long-lasting (won't fall apart easily)

### Cons:

Expensive to build

## Levees



### How it Works:

A large wall that is created using sand or other materials. It blocks water from going near houses.

### Pros:

Not expensive

Easy to set up

### Cons:

Can wear down and fall apart over time

Do you have ideas about how to build a house in an area with flooding? Share with your class!



# Our Decision

My team and I had a meeting and decided to build an amphibious house!

Amphibious houses don't fall apart easily. We know that when the river floods, the amphibious house will float. Even though it is expensive to build it, we think it is the best choice!



Now that we have decided on what type of house to build, we have a lot of work to do! I made a list on my iPad of what I need to do next!

## To Do list

- **Create a blueprint of what an amphibious building will look like.**
- **Create a list of how much each material will cost to build the house.**
- **Make sure I am follow building codes when I design the house.**

