

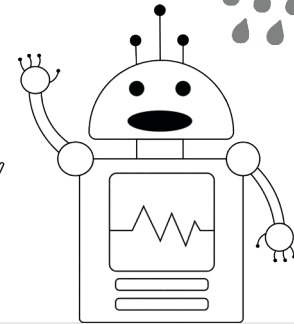
Date: _____

Name: _____

Survive the Storm



I need your help! There's a storm coming but because I am a robot, the rain would make my circuits fry and my metal rust. Your job is to design and build a shelter that will help keep me safe and dry during the storm!



Guidelines: Your design needs to be able to keep out heavy rain and stand against strong winds. It needs to be at least 6 inches tall and 5 inches wide, so Esiw has space to fit inside. There needs to be a door that can open and close so our robot friend can easily get inside and the shelter needs a floor so that the water doesn't get on Esiw's feet.

It's important to think about what shapes and materials to use. Here are some good questions to ask yourself:

- Can you think of any materials around your home that are waterproof?
- What materials would be strong and durable enough to stay standing against strong winds and heavy rain?
- What shapes can you use to make sure your structure is very stable?

Once you come up with some ideas, it's time to draw your design! Include some labels to show what supplies you're going to use.

Draw your shelter here!

Date: _____

Name: _____

Survive the Storm ... Let's Test!

Below, list the supplies you found around your home that you think are waterproof and non-waterproof that you will use in your design. Make sure you talk to an adult to see if you can use something.

Waterproof supplies:

Non-Waterproof supplies:

Now it's time to build! Grab all your supplies and have fun!

Let's test your shelter to see if it's waterproof:

Put your structure outside or in a bathtub or sink, take a cup or watering can and fill it with water. Put something inside your structure that will help you see if water comes in, like a piece of crumpled paper or a cloth. Now pour water over your structure!

Let's test your shelter to see if it will stand up against wind:

If you have a fan, you can do this inside, put the structure in front of the fan to test its wind resistance. If your structure has some weight to it, it should not be easy to blow over. With the fan, start on the lowest setting and increase the fan speed to see how your shelter stands up against the different wind speeds.

If you don't succeed, don't worry! Design is all about trying until you find something that works. The only way to truly fail is to give up.