



## BECOME THE EXPERT

Do you like making crafts? Cooking yummy foods? Building machines or contraptions? If so, you've probably used instructions. Instructions are an outline or list of steps written down by an expert to show you how to make something.

In the Lerner Maker Lab database, each project starts with a list of the supplies you need to make a craft, experiment, or recipe. Then, a list of step-by-step, specific instructions teaches you how to use those supplies to complete the activity. Instructions are very useful when you want to learn how to make something new, but they are also useful in another way. They can help you teach someone else!

You can become the expert and create your own Lerner Maker Lab project! With a few simple steps, you can teach your family and friends how to cook a recipe you love, how to make a cute craft out of felt or paper, or how to build a machine you invented!

Can't think of a project to write about? No problem! Look at other Lerner Maker Lab projects or books in your library for inspiration.

## WHAT YOU'RE MAKING

Start by describing what you are making. If you are making a recipe, what is the recipe for and where did you learn about it? If you are making an experiment, what are you trying to learn about or test? Write about it at the top of your instructions. And remember to give your project a fun name!

## SAFETY FIRST!

Some tools can be dangerous! If your project needs a scissors, knife, stove or other tools that could cause an injury, write down a warning to be careful and ask for an adult to help. If you are giving instructions for a recipe, include any food allergies people should know about before making your recipe, such as nuts or dairy.

## A NOTE FOR EDUCATORS

In this Lerner Maker Lab activity, students will design their own maker project. Students will draft, test, and revise clear step-by-step instructions. This activity supports digital literacy, research skills, and a wide range of Common Core language and writing standards, including Production and Distribution of Writing, Text Types and Purposes, and Conventions of Standard English.



## WHAT YOU'LL NEED

### SUPPLIES

Listing all the materials, ingredients, and tools needed at the top of a project means that makers can gather everything they need before they start. That way people don't have to stop the project to find supplies!

Think through all the materials that are used to complete your project, and write them down. Next, list any tools you will need to use with those materials. For example, the Lerner Maker Lab Trebuchet project lists a ruler for measuring craft sticks and glue for sticking them together.

If you are writing a recipe, what ingredients do you need? List them all, even little ones like salt and pepper. Don't forget to list the tools or kitchen utensils needed as well! What do you use to measure, mix, or cook your ingredients? Make sure you list them all so that whoever reads your recipe will have everything they need to make your delicious dish.

### PREPARATION TIME

Some experiments or recipes take extra time to prepare or get the ingredients ready. That's why recipes include how long it usually takes to prepare the ingredients and how long it takes to cook or bake the dish. For example, the Lerner Maker Lab Apple Cranberry Crisp recipe lists a preparation time of 20 minutes and a bake time of 1 hour.

As you make the recipe, time yourself as you get the ingredients ready, then write that time down after listing your ingredients.

## HOW TO MAKE IT

Once you describe what your project needs, you'll need to explain how to complete it. Writing step-by-step instructions helps your reader know what needs to happen first in the project. For example, in the Lerner Maker Lab Catapult project, Step 1 is to make the front and back parts of the base so that the rest of the catapult can be built on top of them.

Take your project and break it up into small steps. Try to make each step as simple and specific as you can so the directions are easy to read and understand. For example, after you tell a maker to add ingredients to a bowl for a cookie recipe, you need to explain how to stir the ingredients together.

You can also draw pictures to help illustrate some steps. This can be helpful for complicated steps, like how to fold paper for an origami craft.



## CONCLUSION

Adding a conclusion to your project is a nice way to encourage your reader to try variations on the project, or learn more about the science behind an experiment.

### TRY THIS!

Some projects can be done in different ways. For example, the Lerner Maker Lab Calzone recipe says you can try adding your own favorite pizza toppings to the inside of the calzone instead of the ingredients listed. Yum!

Are there any ways your friends or family could make their recipe, craft, or machine special? You can add some ideas at the end of your instructions to inspire them!

### HOW IT WORKS

The end of your instructions is also a great place to teach your friends and family about your project. For example, the Lerner Maker Lab Trebuchet project explains how the trebuchet was used to attack castles or city walls during Medieval times. Is there cool science or history behind your project? Share it here!

## TEST AND REVISE

Now that you have your first draft, ask a friend or adult to test your instructions by following them exactly as written. They can tell you if any steps are missing or hard to understand. Revise your instructions with this feedback.

Then, go share your final project with your class, friends, and family!



Project name: \_\_\_\_\_

Your name: \_\_\_\_\_

## WHAT YOU'RE MAKING

## WHAT YOU'LL NEED

MATERIALS

TOOLS

**SAFETY FIRST!**



## HOW TO MAKE IT

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

**TRY THIS! / HOW IT WORKS**



Recipe name: \_\_\_\_\_

Your name: \_\_\_\_\_

## WHAT YOU'RE MAKING

## WHAT YOU'LL NEED

INGREDIENTS

EQUIPMENT

SERVES:

PREPARATION TIME:

BAKE TIME:

**SAFETY FIRST!**



## HOW TO MAKE IT

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

**TRY THIS! / HOW IT WORKS**