# Middle School Career Investigations: What is Manufacturing?

## Title

What Is Manufacturing?

Click ***NEXT*** to begin.

## Introduction

Stop and take a moment to look around. You may see a computer, laptop, or mobile device. You may see a chair, a table, and your shoes. Have you ever stopped to think about how all of these items are produced?

## Manufacturing Process

Manufacturing occurs when there is an input of raw materials. Raw materials can be anything from oil to wood to metals, and even food ingredients.

Those raw materials go through some sort of process to be manufactured into something else. The manufacturing can consist of actions like casting, cutting, assembling, 3D printing, and mixing or baking.

The result of the manufacturing process is a product, like clothing, tools, game systems, toothpaste, and pretty much everything you use on a daily basis.

## Example - Input

Take a look at this example of the manufacturing process. See if you can guess what the final product will be!

First, start with the input of raw materials. In this case, the raw materials are flour, eggs, chocolate chips, sugar, butter, baking soda, and a tiny bit of salt.

## Example - Process

Next, those raw materials need to be manufactured. Using special equipment, they go through several processes, including measuring the correct amount of raw materials, mixing the materials together, and heating the combined materials until they are baked.

## Example - Process

As you may have guessed, the output in this case is chocolate chip cookies.

## Dependence

Within a manufacturing environment, each worker is dependent on other workers. For example, the person boxing the final product in this picture is dependent on the person making the boxes. Prior to that, the person overseeing the assembly of the widgets is reliant upon the person cutting and sizing the pieces.

You have now completed this activity, if you would like to replay it, click ***REPLAY***. Otherwise, click ***EXIT*** to close the activity.