

# Design Something Useful From a 2 Liter Soda Bottle

## Learning Objectives

### Obj 1. Understand and learn about repurposing (Wikipedia):

**Repurposing** is the process by which an object with one [use value](#) is transformed or redeployed as an object with an alternative use value. This kind of activity is as old as human civilization, with many contemporary scholars investigating that way that different societies re-appropriate the artifacts of older cultures in new and creative ways. <sup>[1]</sup> More recently, repurposing has been celebrated by 21st century hobbyists and arts-and-crafts organizations such as [Instructables](#) and other [Maker culture](#) communities as a means of creatively responding to the ecological and economic crises of the 21st century. Recent scholarship has attempted to relate these activities to American left- and right-[libertarianism](#).

### Obj 2. Understanding why repurposing is important (Ecowatch.com).

Facts from Ecowatch.com

Each year enough plastic is thrown away to circle the globe 4 times

93% of Americans 6 years and older test positive for the plastic chemical BPA.

Over the last ten years we have produced more plastic than during the whole of last century

50% of the plastic we use, we use once and then throw it away.

It takes 500-1000 years for plastic to degrade

Virtually every piece of plastic that was ever made still exists in some shape or form (with the exception of the small amount that has been incinerated).

### Obj 3. Learn and understand basic skills for creating an object in Tinkercad.

#### Process

Identify a need or shortfall

Analyze how to fill the need with a design

Create design

Print design

Analyze design

Refine drawing

Reprint design

Apply design to bottle and use

#### Cool things others have done on Thingiverse using 2 liter bottles

<http://www.thingiverse.com/thing:150990>

<http://www.thingiverse.com/thing:9535>

<http://www.thingiverse.com/thing:10323>

**Other cool things from around the web!**





**Assessment**

- Allow students decide best design
- or
- Best use of Tinkercad
- Most creative (thoughtful) design
- Most useful design