

# Design Something Useful From a 16oz Bottle using Tinkercad and your 3D printer

## 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. 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



Design examples in Thingiverse:

<http://www.thingiverse.com/thing:878184>

<http://www.thingiverse.com/thing:10600>

<http://www.thingiverse.com/thing:44568>

### **Assessment**

Allow students decide best design

or

Best use of Tinkercad

Most creative (thoughtful) design

Most useful design