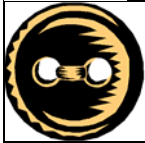
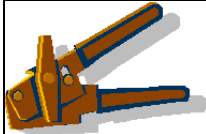


What's the shape and what is this made of? Can you explain what it is used for?



What is the shape and what is this made of? Can you explain what it is used for?



What is the shape and what is this made of? Can you explain what it is used for?



What is the shape and what is it made of? Can you explain what it is used for?



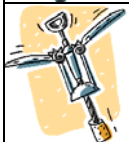
What is the shape and what is it made of? Can you explain what it is used for?



What is this made of? Can you explain what it is used for?



What is the shape and what is it made of? Can you explain what it is used for?



What is this made of? Can you explain what it is used for?

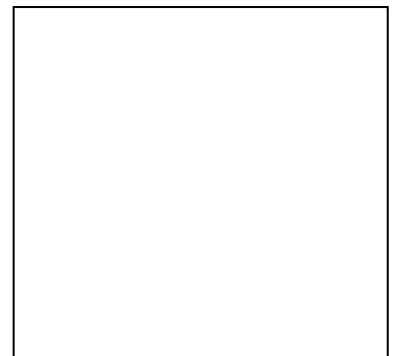


What is the shape of the ring? What is this object made of? Can you explain what it is used for?

## The Kettle

**Draw the object described below and label the different parts of the object.**

A kettle is a metal container which is used for boiling water. It consists of 4 main parts: a vessel, a lid, a spout and a handle. The vessel is 7 inches high. It is hollow and spherical in shape. The base is flat and circular. It has a diameter of 6 inches. On the top of the vessel, there is a convex lid with a plastic knob in the middle. The lid is 5 inches in diameter. Above the lid is a curved handle which is covered with plastic at the middle part. At the side of the vessel is a conical spout for pouring water out of the vessel.



## Portable 3D laser scanner

<http://news.directindustry.fr/press/z-corporation/premiers-modules-de-balayage-3d-portatifs-pour-de-grands-objets-couleur-19418-35392.html>



9 February 2009

Z Corporation today unveiled two breakthrough handheld laser scanners to help organizations quickly and easily capture large swaths of 3D geometry and true color data for reverse engineering, inspection, product design, and a host of other applications.

Scan very large objects with mobility:

The new ZScanner 700 PX is the world's only handheld laser scanner that precision-scans large objects such as aircraft and automobiles, items that previously have been too big to capture by hand. The breakthrough stems from built-in AICON™ photogrammetric software, previously available only in fixed-position 3D scanners that lack the handheld's mobility, speed and convenience. As users of the ZScanner 700 PX choose larger target objects for scanning, its accuracy increases, to up to eight times that of the standard ZScanner 700. The new ZScanner's ease of use, accuracy and portability make it ideal for applications such as reverse engineering, inspection, 3D archiving, complex shape acquisition, measurement, damage assessment, digital modelling / mockups and rapid prototyping. The speed and accuracy translate into cost savings, increased quality and additional revenue.

Capture the 'whole picture' with color:

The ZScanner 700 CX is the world's first handheld laser scanner that can capture surface information in full 24-bit color, rendering the complete picture of an object, not just the geometry. Color 3D data enables more realistic and informative 3D visualization and concept models, making the ZScanner 700 CX ideal for cultural heritage, anthropology, archeology, art, entertainment and Web applications, as well as product design and reverse engineering.

In addition to capturing color, the ZScanner 700 CX provides automatic, fully accurate texture mapping. Texture maps can be saved separately from the mesh, meaning users can modify or refine the texture in photo editing software without compromising accuracy. Flexible resolution during scanning enables the user to reduce resolution to obtain a lighter-weight file or smoother surface appearance. Dual scanning mode lets the user toggle between color and monochrome modes during the same scan.

This scanner deliver a resolution down to 0.1 mm and XY accuracy up to 80 microns, it is an ideally balanced solution for value-conscious users.

What's the function of this device?

Where and when can it be useful?

Describe some of its technical features

Choose an object and get ready to make an oral presentation of this object to your classmates.