**Lesson Plan Outline Geometry in Construction**

**Title:**

Cross sections of 3D Objects

Shapes formed by rotating 2D figures

**Objective(s):**

The students will explore the cross sections of 3D figures through hands on experiments and develop into finding cross sections from a drawing

Students will discover the shapes that are formed from the rotation of 2D figures around a fixed point

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.GMD.B.4](http://www.corestandards.org/Math/Content/HSG/GMD/B/4/)Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

**Activities:**

The students will explore the cross sections of 3D figures through hands on experiments and develop into finding cross sections from a drawing

Food & object slicing activity; students will document through pictures and other resources a learning guide.

The students will use cutouts of figures to discover the shapes formed by its rotation around a fixed point and will cut shapes up to determine the original shaped being rotated around a fixed point.

**Materials:**

Fruits and Play-Doh

Wood cutouts

3D Cross Sections W.S.

2D Rotation W.S.