**Geometry for the 2014 GED Resources:**

**Worksheets:**

Identifying 3d shapes and their (unfolded) nets.

<http://www.mathworksheets4kids.com/solid-shapes.html>

including –

* Given net (unfolded shape) name the 3d shape
* Matching 3d shapes to nets.

Surface area of 3d shapes

<http://www.mathworksheets4kids.com/surface-area.html>

**Resources for Geometry Problem Solving:**

These are fodder for problem solving activities. Use the images or content to create problems for your students.

|  |  |  |
| --- | --- | --- |
| Shape | Notes | Link |
| Rectangular prism  Surface Area | Art on trucks – how much room for art? (Consider what sides would be in accessible/ unseeable) | <http://bedtimemath.org/fun-math-art-on-trucks/> |
| Rectangular prism  Volume? | Chocolate Legos - What volume of chocolate bricks? # of bricks to make something else? Given volume of chocolate, how tall is stack of bricks? | <http://bedtimemath.org/fun-math-chocolate-legos/> |
| Rectangular Prism | Giant Jenga | <http://bedtimemath.org/fun-math-construction-vehicle-jenga/> |
| Rectangular prism  Surface Area? | Box for shipping –  Students might be asked to find:  Size of boxes  Cardboard needed for box  Percent difference between two boxes | <http://bedtimemath.org/fun-math-giant-slipper/>  <http://www.dailymail.co.uk/news/article-2051081/Tom-Boddingham-slipper-Decimal-point-error-sees-size-size-1-450-order-China.html> |
| Rectangular prism  Cylinder | Trees to boards  Volume | <http://bedtimemath.org/wall-to-wall-trees/> |
| Rectangular Prism | Given some of this data, students might be asked to find:  -Volume of tank or one of the dimensions  -Volume per fish  etc. etc. | <http://bedtimemath.org/fun-math-large-fish-tank/> |
| Cone | Walk-a- taco  Volume | <http://minnesota.cbslocal.com/2011/03/22/walk-a-taco-added-to-target-field-menu/>  <http://minnesota.twins.mlb.com/news/press_releases/press_release.jsp?ymd=20110322&content_id=17058094&vkey=pr_min&fext=.jsp&c_id=min> |
| Rectangular prism | Largest rectangular prism on one piece of paper  What questions can we ask our students to make this as useful as possible?  Offer table of length, width, height, volume and surface area? | <http://matharguments180.blogspot.com/2014/10/280-rectangular-nets-of-maximum-size.html> |
| Cone and sphere | Would a melted scoop of ice cream fit in the cone? |  |
| Cylinder and spheres | Volume  Second link has scaffolded questions. | Based on: <http://blog.mrmeyer.com/2013/makeover-meatballs/>  <http://algebrasfriend.blogspot.com/2013/07/makeovermonday-will-sauce-spill-over.html> |
| Rectangular prism | Surface area– file cabinet/ post it notes | <http://www.101qs.com/518-file-cabinet--act-1> |
| Rectangular Prism | Dan Meyers 3 act lesson  “Which of four packages uses the least amount of packaging? Which uses the least amount of ribbon?” | <http://blog.mrmeyer.com/category/3acts/> |
| Cylinder | Dan Meyers 3 act lesson  Volume?  There is also a ration question here. | <http://www.101qs.com/3043-nanas-lemon-water> |

**Other Resources:**

Rectangular Prism Nets:

<http://matharguments180.blogspot.com/2014/09/256-nets-rectangular-prism.html>

Estimation 180:

Visual estimation activities, various math concepts

<http://www.estimation180.com/>

Math Assessment Project :

incredible, ready to go Common Core aligned lessons, high interest, higher order thinking, free.

Check out one on rectangular prisms called **Packing It In** <http://map.mathshell.org/materials/lessons.php>

Fawn Nguyen :

Lesson on surface area and volume using a doughnut.

<http://fawnnguyen.com/i-am-a-doughnut/>

Yummy Math

Mathematics relevant to our world today

<http://www.yummymath.com/>

Robert Kaplinsky

Engaging open ended prompts

<http://robertkaplinsky.com/>

2014 Formula Sheet:

<http://www.gedtestingservice.com/uploads/files/03826c3fc0c714c06667b83ce44b53b7.pdf>

Challenge problems:

Rectangular prism: <http://www.openmiddle.com/rectangular-prism-surface-area-versus-volume/>

Triangles and 3d shapes: <http://fivetriangles.blogspot.com/2013/05/68-volume-of-solid.html>

Three Act Lessons: <http://blog.mrmeyer.com/2011/the-three-acts-of-a-mathematical-story/>

Examples of foam 3-D shapes to purchase:

* <http://www.amazon.com/Didax-Easyshapes-3D-Geometric-Shapes/dp/B000XO4HNY/ref=sr_1_3?ie=UTF8&qid=1420594889&sr=8-3&keywords=foam+shapes+3d>
* <http://www.reallygoodstuff.com/easy-shapes-geometric-shapes/p/152134/?cvsfa=4492&cvsfe=2&cvsfhu=313532313334&gclid=Cj0KEQiArK6lBRC5-_jv48uxgrgBEiQAuxdZ9cZy6XfTGvr2F0y3wkudQVzBomRpdu2Cnt9tLZSVWzkaAjgK8P8HAQ>