MATH CONTENT STANDARD LEVEL 4: MEASUREMENT AND GEOMETRY Adult learners will develop and apply measurement and geometry to solve a variety of real-life problems and to determine if the results are reasonable.

Benchmarks On exit of this level, learner is able to:	Applications Examples of how/where learners will use this skill:	I do it well enough	I want to work on it	I don't need to work on this now
4.6.1 Understand and apply basic properties of lines, angles, and triangles	 Determine stage or house lighting to develop a mood. Create a set design. Map houses and streets in a neighborhood. Read a landscaping blueprint. 			
4.6.2 Draw, construct, and solve geometric figures.	 Place furniture in a room in a house. Draw a garden and place trees, plants, and shrubs. 			
4.6.3 Apply the Pythagorean Theorem to solve problems	Use the theorem to determine the length of a shadow of a tree at noon.Determine the height of a given object.			
4.6.4 Understand the concept of volume, surface area, and applications of formulas.	 Describe how this could be used by surveyors. Job shadow a surveyor or an engineer. 			
4.6.5 Understand polygons	 Draw a polygon. Identify related objects in a toy box. Identify an artistic display of polygons in stained glass. 			
4.6.6 Visualize solids and apply the concepts of transformation and symmetry.	 Sketch a variety of two-dimensional representations of three-dimensional solids. Measure and draw a classroom to scale. 			
4.6.7 Understand and use dilation.	 Change house plans. Estimate prices when comparing reductions or increases in scale models. 			
4.6.8 Understand and use reflective and rotational symmetries of two- dimensional shapes.	 Relate these transformations to solve problems. Design a tattoo using various two-dimensional shapes. Cut out a dress pattern on material and put it together. Fit quilt pieces together to make a specific shape. 			