SS6.1

Activity 14.6 WAX PAPER PROTRACTOR PROJECTS

The first part of this activity involves making the tool, incorporating concepts of circles and angles.

Make the protractor: Give each student a piece of wax paper that has been cut into a circle. Ask, "How many degrees in a full circle?" Ask students to fold the wax paper carefully in half and in half again, forming fourths. Ask, "How many degrees in the angles in the center?"[90 degrees] Next, ask students to refold the circle in fourths, and then to fold that fourth into thirds, crease, and open. Ask, "How many pieces?" [12 pieces] What is the angle measure of each twelfth (sector)?"[30 degrees]

Use the protractor: Point to or hold up various objects with vertices, and ask students to use their protractor to estimate the angle measure of those objects. Discuss the reasonableness of their estimates. Then have students use their wax paper protractor to measure. For example, challenge students to find five objects, each of which has a different angle measure and at least two of which have an angle measure greater than 90 degrees.

Teaching Tip

Be sure to include measurements of 180 degrees and greater so that students realize there are measures beyond 180 degrees.

From Van de Walle et. al. (2014). *Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 6 – 8 (2nd Ed.)*. Toronto: Pearson Education, Inc. (p. 305-306).