Ideas in Mathematics:
Angle Measurement

Readiness
Individual
Algebra:
Teaching of
Supporting
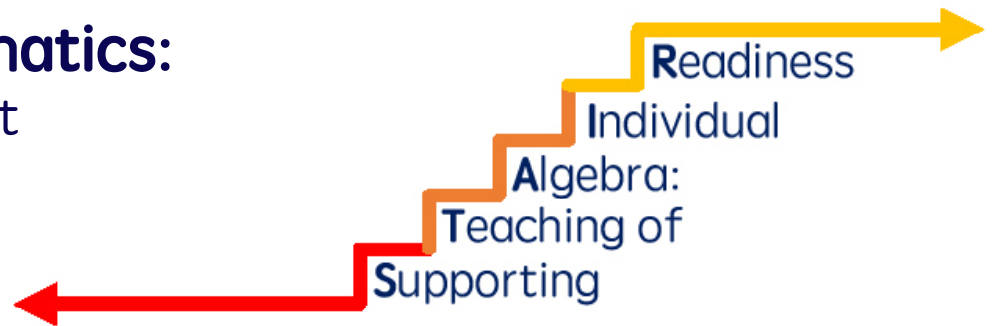
Key Concepts of Measuring Angles

- Angles are composed of two rays with a common vertex.

- Angles are measured by how widely or narrowly the two rays are spread apart or rotated around the vertex.

- Many students may struggle with measuring angles because one degree on a protractor is very small and hard for students to visualize.
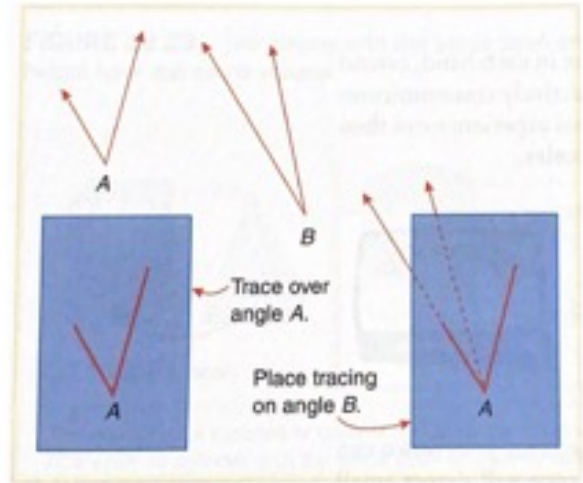

Trace over angle A.

Place tracing on angle B.

FIGURE 18.25 Which angle is larger?

(Van de Walle et al., 2019)

A single hundredths disk

Two disks being merged or assembled

The assembled unit showing two parts of the whole

Teaching Angle Measurements

- Have students trace once angle and place it over a second angle of different spread. The rays should be of various lengths to emphasize the length of the rays does not impact the measure of an angle (See Figure 18.25).

- Have students create Angle Makers in which two different colored plates are cut and merged. Have students rotate the plates to estimate benchmark angles include 30, 45, 60, 90, 135, 180, and 270 degrees and then match observed angles (See Figure 16.5)

- Explicitly teach students how to use protractors and measure various angles using the tool.

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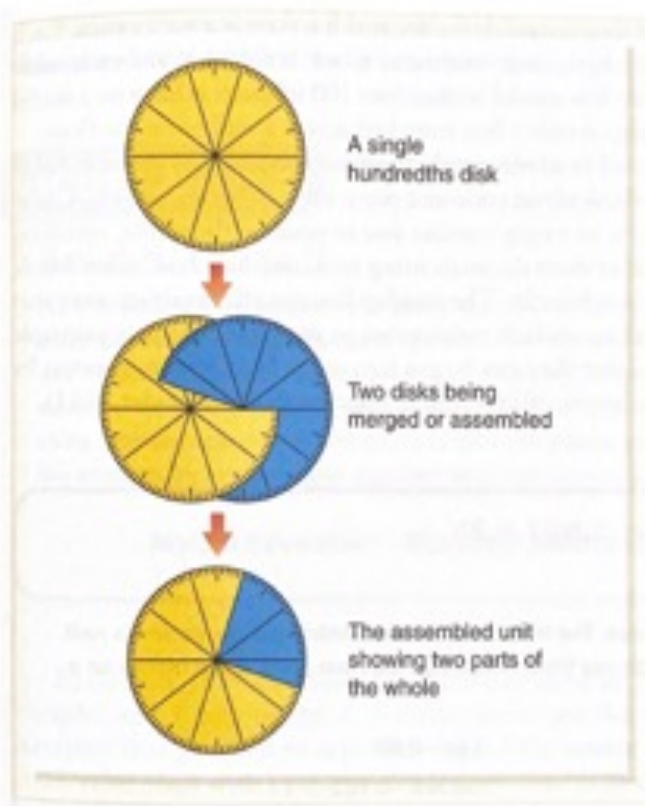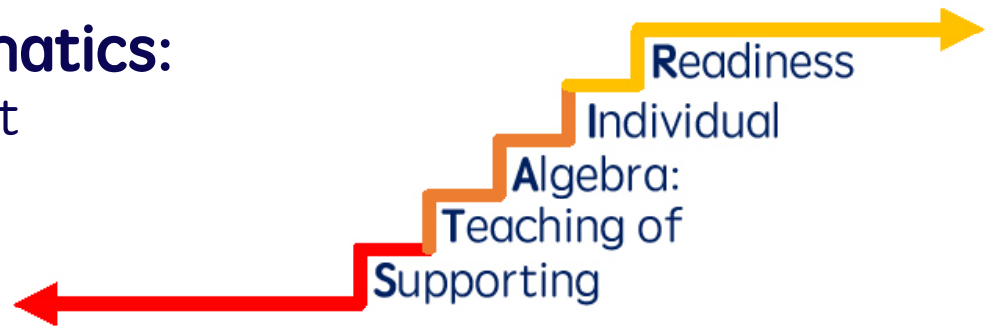
Resources for Angle Measurement

- **Virtual Protractors**
  Provide students opportunities to practice measuring with a protractor.
- **GeoGebra Angles & Lines**
  This space allows students to explore features of lines, angles, and basic polygons.
- **Measuring Practice with IXL**
  Practice opportunities to measure with a protractor and receive feedback.