Automotive Technology 6th Edition
Chapter 12 – Measuring Systems and Tools
Lesson Plan

CHAPTER SUMMARY:

1. English customary measuring system and metric system of measure
2. Linear measurements, micrometer, and depth micrometer
3. Telescopic gauge, small hole gauge, dial caliper, and feeler gauge
4. Straightedge, dial indicator, and dial bore gauge

OBJECTIVES:

1. Compare the English customary measuring system and the metric system.
2. Discuss the purpose of tape measures, micrometers, and depth micrometers.
3. Discuss the purpose of telescopic gauges, small-hole gauges, and dial calipers.
4. Discuss the purpose of the straightedges, dial indicators, feeler gauges, and dial bore gauges.

RESOURCES: (All resources may be found at http://www.jameshalderman.com)

1. **Task Sheet**: Micrometer and Vernier Dial Caliper
2. **Task Sheet**: Feeler Gauge and Straight Edge
3. **Task Sheet**: Dial Indicator and Telescopic Gauge
4. Chapter PowerPoint
5. Chapter Crossword Puzzle and Word Search
6. Animations: Dial Indicator With Gear and Measure Crankshaft Out of Round
7. Animations: Measure Crankshaft Taper and Micrometer
8. Animations: Reading a Rule, Inch and Reading a Rule, Metric
9. Animations: Vernier Dial Caliper and Torque to Angle

ACTIVITIES:

1. **Task Sheet**: Have students complete Micrometer and Vernier Dial Caliper Task Sheets.
2. **Task Sheet**: Have students complete Feeler Gauge and Straight Edge Task Sheets.
3. **Task Sheet**: Have student complete Dial Indicator and Telescopic Gauge Task Sheets.

ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
2. Complete end of chapter 10 question quiz.

CLASS DISCUSSION:

1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.
2. Review and group discussion of the five (5) chapter Review Questions.

NOTES AND EVALUATION:
