

# Automatic Transmissions and Transaxles 8<sup>th</sup> Edition

## Chapter 2 – Introduction to Drivetrains

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Drivetrains, Torque, Horsepower, Gears, Gear Ratios, and Manual Transmissions
2. Automatic Transmissions and Rear-Wheel Drive vs Front-Wheel Drive
3. Transaxles, Driveshafts, Drive Axle Assemblies, Towing Capability, and Four-Wheel Drive

---

#### **OBJECTIVES:**



1. Define torque, and explain the relationship between torque and horsepower.
2. Describe the various gear types and their effect on speed, torque and direction of rotation.
3. Explain gear ratios and their effect on vehicle operation.
4. Discuss the types of manual transmissions and transaxles that are currently in use.
5. Discuss automatic transmissions and the planetary gear sets used for automatic transmissions.
- 6 Compare rear-wheel drive, front-wheel drive, four-wheel drive, and all-wheel drive systems.
7. Explain the characteristics of drive shafts and drive axle assemblies.

---

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



1. Task Sheet: Drivetrain Identification
2. Chapter PowerPoint
3. Crossword Puzzle and Word Search
4. Videos: [\(A2\) Automatic Transmissions and Transaxles Videos](#)
5. Animations: [\(A2\) Automatic Transmissions and Transaxles Animations](#)

---

#### **ACTIVITIES:**



1. Task Sheet: Drivetrain Identification
2. Crossword Puzzle and Word Search

---

#### **ASSIGNMENTS:**



1. Chapter crossword and word search puzzles.
2. Complete end of chapter 10 question quiz.
3. Complete multiple choice and short answer quizzes downloaded from the website.

---

#### **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:**

