



DIGITAL OVERDRIVE

Automotive & Transportation Technology

General Information

Digital Overdrive has been designed to cover many technology related areas while focusing on the needs of classrooms across North America. This unique series of products takes a realistic point of view towards the automotive & transportation technology areas. It has been designed by teachers to expand and promote the use of technology in creative ways.

Chapters included in the text are:

Introduction & Safety
Trade Essentials
Career Explorations
Engine Introduction
Engine Details
Cooling System

Lubrication
Electrical Systems
Fuel Systems
Clutch & Transmission
Air Transportation
Space Transportation

...plus bonus videos included in **DOi** (the interactive CD) on Oil Change, Roadside Tire Change, Parts of a Valve, Four Stroke Cycle, Disc Brake Inspection, Remove & Install Pistons and Crankshaft, Taking Apart a Piston and more! Not to mention free access to our website where you can download updates and other resource material at no cost.

There are 5 components currently in the series:

- **Digital Overdrive interactive - Student Edition CD-ROM**
- **Teacher Edition CD-ROM**
- **Teacher Edition Binder**
- **Hardcover Textbook - Student Edition**
- **DVD Videos**

All of our products come with full licensing for 25 computer for use in class plus duplication rights for the Student CD so they can install their textbook at home. There are no upgrade contracts, annual fees or hidden costs in any of our products. Think of the thousands of dollars you will save in your classroom by using our CD based products! Our interactive CD-ROM replaces the standard print textbook and will immediately save you at least \$1000 when compared to a class set of printed textbooks. Plus you will stay up-to-date every 3 years if you purchase the optional new edition. Your students deserve current information and Digital Overdrive can deliver it for you.

WEBSITE ACCESS (will be available once updates are made)

All of our customers enjoy free access to our website to obtain updates and download new material. As soon as you become a Digital Overdrive customer, we will add you to the downloads section. There you will find material that is not published in the book as well as new chapters that have been developed. All of our original customers have enjoyed years of downloading new material, including new chapters directly from our site at no additional charge.



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Digital Overdrive *interactive* - Student Edition CD-ROM

\$599 site license fee for 25 computers plus duplication rights for Student CD - PC Version

Our most exciting product to date! **Digital Overdrive *interactive*** will change the way you look at a textbook. Each page has been transformed into an interactive eTextbook with web links, pop-up definitions and pictures, and video examples. These components help reinforce student learning by showing concrete examples and personal instruction.

The easy to navigate interface allows students to read at their own pace and explore topics that interest them in more detail. Colour schemes and icons identify additional learning opportunities. This makes **Digital Overdrive *interactive*** one of the most powerful learning tools ever created for high schools.

The **DOi** eTextbook is sold as a site license which allows you to install the program on up to 25 computers in the school. PLUS you can duplicate the Student CD and give it out to students to take home as their textbook... all included in your original \$599 site license fee!

Never has a textbook been able to include so many features right on the page. **DOi** is like nothing you have ever seen in high school. Students will be engaged and want to read their textbook. Teachers are able to stay current with their information by optionally purchasing the new updated CD every few years for a low fee of \$199! You simply uninstall the previous version and install the new one.



HIGHLIGHTS

- Interactive multimedia CD-ROM with weblinks, pop-up definitions & graphics, video examples
- Over 98 minutes of full-motion video on various topics demonstrating different aspects of automotive and transportation technology
- Professional instruction that enhances the theory
- Includes all 12 chapters, student worksheets and the Quiz Launcher program for evaluating student knowledge through on-screen testing
- Built-in student worksheets for every chapter - students can simply open them up right from the program and print off the worksheets from Acrobat Reader
- Duplication rights so the Student CD can be handed out to every student to install at home
- Two CD's are included, one with the quiz content for use in class and a student version for use at home that does not have the quiz content on it



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Automotive & Transportation Technology

Sample page from the interactive CD-ROM

Chapter Topics: what is contained in the chapter - these can be clicked on for direct access to the topic

Access to Worksheets, Quizzes and Help

Navigation System

Page Notes: tells you at a quick glance what is covered on that page

Chapter 4
Engine Introduction

WORKSHEETS | CHAPTER QUIZ | HELP

■ Classification ■ Moving Engine Parts ■ Four Stroke Cycle ■ Valve Timing ■ Measurement & Performance

D. Rotary Engine

The rotary engine is unique in that its cylinders are built into a spinning rotor. Another name for the rotary engine is the Wankel engine, after its inventor Felix Wankel. Mazda has built millions of RX model cars equipped with a rotary engine and had fair success with it. This engine is fairly compact, has few moving parts and provides considerable output.

Rotary Engine

vehicles. Some V6 engines are capable of fairly high horsepower output. They may be mounted **transversely** or **front to back**. Many diesel buses and some trucks are equipped with a large V6 Detroit Diesel engine.

F. 4 Cylinder Inline Engine

The 4 cylinder inline engine is commonly used in compact cars. This engine is fairly small and can easily be installed transversely or front to back. Some compact cars are equipped with a 3 cylinder inline engine.

4 Cylinder Inline Engine

E. V-6 Engine

The V6 is a very popular engine configuration. This engine is compact and easily adapted to fit into many models of

V-6 Engine

Page Notes

- Rotary Engine
- V-6 Engine
- 4 Cylinder Inline Engine

Watch a video on Engine Configurations
Length 1:50

Transversely mounted engine

Felix Wankel biography
http://library.thinkquest.org/C006011/english/sites/wankel_bio.php3?v=2

Front to back mounted engine

2

Video Clip: video can be played on that topic

Weblink: takes you to a website for more information on that subject

Definition or Fact: a pop-up definition for that word or more detail about that subject

Pop-up Pictures: a picture that is associated with the topic can be viewed



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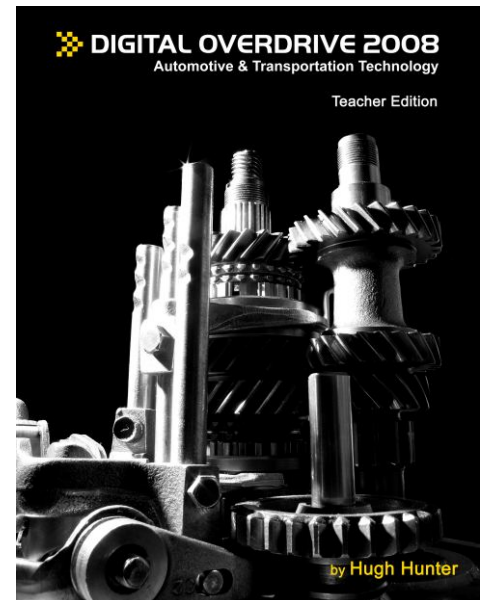
Teacher Edition CD-ROM and Binder

CD-ROM \$149, Binder \$229

The Teacher Edition is the perfect compliment to **DOi** or standing on it's own as a separate resource. It comes in 2 versions - CD-ROM and print.

The CD-ROM version uses Adobe Acrobat Reader which allows the user to scroll through the pages one at a time. You decide what information is worth printing and which files you will use for class. The CD-ROM contains 12 chapters plus student and instructor worksheets for each chapter. With over 500 pages of information, the CD-ROM edition is an extraordinary value for any teacher. The CD works on PC systems.

The print version of Digital Overdrive 2008 for teachers is housed in an expandable binder and comes with over 500 pages. The print edition is an asset you shouldn't go without. It comes in full colour, with all the same content as the Teacher Edition CD. That means all 12 chapters and all the student and instructor worksheets. Additional material can be downloaded from our website and added to the binder making it an expandable resource that will grow with you! The download section will become active once there are updates for the series.



HIGHLIGHTS

Teacher Edition CD-ROM and Binder

- Over 500 pages, 12 chapters in full colour
- Includes all Hardcover Student Edition pages plus over 300 pages that contain student and instructor worksheets for every chapter
- Free website access to download new material (activated once updates are available)



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Student Hardcover Text

\$69 per book

The full colour, hard cover text version contains chapters 1 through 12. This durable text is perfect for class use and access to the website is free just like any other Digital Overdrive product purchase when ordered in quantities higher than 10.

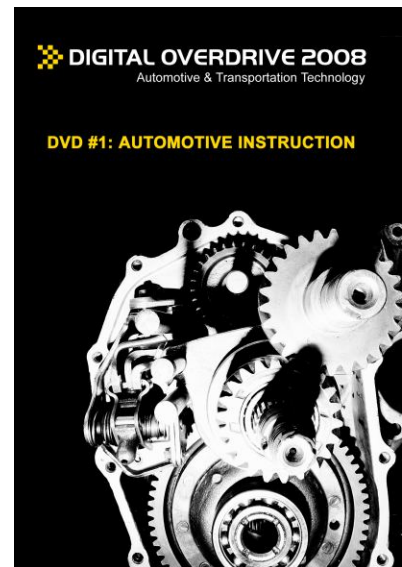
DVD Videos

\$99.00

The DVD series of videos is one DVD with over 98 minutes of instruction for common classroom shop functions. The DVD's will play on a standard DVD player and can be used on a television set or projection system in the classroom. When you purchase the DVD, you have the full rights to play the videos as often as you like.

The following is the list of videos contained on the DVD:

1. Cutting Internal & External Threads	9:00
2. Disc Brake Inspection	15:00
3. Engine Classification by Cooling System	2:00
4. Engine Configurations	2:00
5. Engine Measurements	1:00
6. Four Stroke Cycle	4:00
7. Lifting A Vehicle	2:00
8. Major Moving Engine Parts	4:00
9. Oil Change	4:00
10. Parts of a Valve	3:00
11. Remove & Inspect Tapered Roller Bearings	17:00
12. Remove & Install Pistons & Crankshaft	19:00
13. Roadside Tire Change	4:00
14. Sparkplug Socket - Conventional Ignition	3:00
15. Sparkplug Socket - Individual Coils	3:00
16. Taking Apart a Piston	3:00
17. Using Deep & Shallow Sockets	2:00
18. Using Ratchets & Sockets in a Tight Area	1:00



HIGHLIGHTS

- Over 98 minutes (1 ½ hours) of instructional videos
- Plays on a standard DVD player and can be shown on a TV or projection system
- Covers a wide range of automotive topics



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Hardcover Student Edition

\$69.00 per book, minimum order of 10

- Over 200 pages, 12 chapters and full colour
- Chapters include:
 - Introduction & Safety**
 - Trade Essentials**
 - Career Explorations**
 - Engine Introduction**
 - Engine Details**
 - Cooling System**
 - Lubrication**
 - Electrical System**
 - Fuel Systems**
 - Clutch/Transmission Systems**
 - Air Transportation**
 - Space Transportation**

Teacher Edition Binder

\$229.00

- Over 500 pages, 12 chapters in full colour, student worksheets
- Includes all Hardcover Student Edition pages plus over 300 pages of teacher handouts, worksheet projects, evaluations and answer keys

Teacher Edition CD-ROM

\$149.00, single user

- Entire text is on CD-ROM with an easy to navigate menu system
- All the same features of the Teacher Edition Binder

Interactive CD-ROM, Teacher & Student Edition

\$599.00 site license for 25 computers and duplication rights

- Interactive multimedia CD-ROM with weblinks, pop-up definitions & graphics, audio and video examples
- Over 90 minutes of full-motion video on various topics demonstrating different aspect of transportation technology
- Professional examples enhance the theory
- Includes all 12 chapters, student worksheets and the Quiz Launcher program for evaluating student knowledge through on-screen testing
- 2 CD's included, one with quiz content for class use and one without quizzes for student home use
- Duplication rights so the Student CD can be handed out to every student to install at home

DVD Videos

\$99.00

- Over 90 minutes of instructional video on DVD
- Plays on a standard DVD player and can be shown on a TV or projection system
- Covers topics from a basic oil change to removing and installing pistons



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Professional Development

PD sessions can be arranged for school districts and boards free of charge when large volume orders are placed (\$7000 or higher). Individual sessions with small volume orders are possible but will have a fee associated with it. Sessions can be customized to cover the material you need addressed. Some of the most popular topics have been the following:

- How to structure a course in order to be successful and attract students who are truly interested in the field.
- What projects can be done at different grade levels.
- Sample student work shown for each grade level.
- What equipment is needed for a course.

To arrange for PD sessions, e-mail info@digitaloverdrive.ca or call (905) 332-5712 to arrange for a date.

Curriculum & Program Development

As experienced teachers in this field, we can help new or existing programs develop a strategy for implementing a more powerful course that students will benefit from. Consulting is available to help design or redesign a room, purchase equipment, and create a course that meets and exceeds the expectations of various government and local school outcomes.

Call (905) 332-5712 or e-mail info@digitaloverdrive.ca for more details about these opportunities.

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 Phone: 1-800 761-8896

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	PC Version: 2008 Teacher Edition CD-ROM ISBN 978-1-897507-05-6	\$149.00	\$7.00	N/A
	2008 Teacher Edition Binder, full colour ISBN 978-1-897507-06-3	\$229.00	\$11.57	N/A
	DVD Videos ISBN 978-1-897507-08-7	\$99.00	\$8.00	N/A
	Student Hardcover Textbook ISBN 978-1-897507-07-0 (\$60 flat rate shipping on orders over 10 copies)	\$69.00 _{book}	\$9.00 _{book}	N/A
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