

Educational Objectives of Reading Project Worksheets

The following information describes the educational objectives of the teacher designed worksheets used at [North Montco Technical Career Center](#) as part of a reading program initiated by the [Pennsylvania Department of Education](#) and developed, facilitated and implemented by Temple University in 2002. This reading program is designed to help Career and Technical Education students improve their reading, writing, speaking and listening skills through contextual learning by integrating and linking PDE academic standards with technical tasks.

All worksheets are utilized as an integral “add-in” component to the Automotive Technology curriculum.

[Back to Top](#)

OUTLINE GRID

Educational Objective: Distinguishes between relevant and irrelevant information. Meets the following 11th grade [Pennsylvania Department of Education \(PDE\) Academic Standards for Reading, Writing, Speaking and Listening \(RWSL\)](#):

- a, b, c, d, e, h
- 1.2 a, b1.3 f
- 1.4, b, c, d
- 1.6 b, c, d
- 1.7 c

One required element of all senior graduation projects is that all North Montco Technical Career Center (NMTCC) career and technical education (CTE) students complete an outline of their project. Unfortunately, too many seniors do not know what an outline is, let alone have the ability to write one. This worksheet was introduced to help students learn not only how to complete an outline, but also about the concept of how an outlines helps the learning process. An

outline is the “bones” of the writing assignment, while the other worksheets “flesh-out” the information by identifying main ideas and supporting facts.

When introducing a new chapter, the class is to quickly go through the entire chapter (previewing/predicting). However, they are instructed to skim, not read, the material.

They are to look at the learning objectives at the beginning of the chapter, bolded headings, sub-headings, italicized words, charts, pictures, illustrations, and the chapter summary. Only 5-7 minutes is given to complete this task. To enforce this exercise, I stand in front of the room and deliberately snap the pages of my textbook so the entire class can hear me turning the pages.

After about 7-minutes I begin asking my students to tell me what they think the chapter is about. I become a facilitator and open the floor for comments, questions and for students to question other students. Moreover, this activity presents an opportunity for students to describe a previous learned skill and how it relates to this new information. The lesson takes less than 15 minutes. I use an overhead transparency to show (model) how the grid is to be used.

Students are required to complete a chapter outline before starting the next portion of the program: the reading grids.

Value: 15 points.

Note: My class is currently using the third version of this worksheet. The first one did not have an example of a completed outline, since my students have been writing outlines for four years, and the vast majority of them complete an Outline Grid in less than 10 minutes, I lowered the point value to 15 points, and raised the point value of the Chapter Summary to 35 points.

[Back to Top](#)

READING GRID

Educational Objective: Explains concepts in own words. Meets the following 11th grade

PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 a, b, c, d, e, h
- 1.2 a, b, c
- 1.3 f
- 1.5 e, f
- 1.6 a, b, d, e
- 1.7 c
- 1.8 c

The “Reading Grid Worksheet” is another tool I use to integrate academic concepts into technical training. As you’ll note, there are three columns on each grid. The first column is titled Why Is It There – List Major Parts. In this column, the student is to describe a part of a car. For example, they can write, “engine crankshaft.” In the same block they are to write the function of a crankshaft. In the middle block, titled How/Why Does It Work, they are to write how and why the crankshaft does what it does. In the last column, the student is to write the definition of a vocabulary word related to the crankshaft—enhancing and expounding on the descriptions given in the first two columns.

This breaks things down into three main ideas that an automotive student needs to know: the major system (the powertrain) the assembly (the engine block) the components (the pistons), and individual parts (piston rings). By taking incredibly large and unmanageable portions of very complicated information, then breaking (chunking) it down into small manageable pieces, students become less intimidated by the material. Students then have the ability to easily take

previously learned material and use it to quickly learn new material and concepts using critical and analytical thinking skills.

Value: 50 points

Note 1: This is the most difficult of all the worksheets. There is a two to three chapter learning curve before students fully understand how to fill out these grids. Once they grasp the concept, even the weaker students who previously have done little written work can easily complete three to four grid sheets in the time allotted for each chapter week.

Note 2: My class is currently using the second version of this worksheet. Originally, How/Why Does It Work was the first column heading. However, my textbook is setup in such a way that this is how each section or sub-section of information begins. By rotating the first two columns, my students have to read down into the second paragraph to be able to fill in the first column.

[Back to Top](#)

CHAPTER SUMMARY WORKSHEET

Educational Objective: Predict solutions by summarizing and reflecting on what has been read, identifying and defining new words and concepts and analyzing and synthesizing selections read. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 e, f, g, h
- 1.2 a, b
- 1.3 b, f
- 1.4 b, c, d
- 1.6 a, b, c, d, e, f
- 1.7 c1.5 b, e, f
- 1.8 b, c

The “Chapter Summary Worksheet” is the third tool (journaling) used in my reading program to incorporate the integration of CTE and academic concepts to help my students improve their reading and writing skills. After completing a chapter Outline Grid, and 3-4 Reading Grids, my students are required to complete this worksheet using full sentences and proper grammar. In their own words (paraphrase), they must write a one-to-two paragraph summary about what was covered in the chapter or reading assignment. Included in the summary should be the main idea of the chapter or reading and 3-details or facts that support the main idea. At the bottom of the worksheet they are required to compare and contrast their summary findings to the objectives listed at the beginning of the chapter and the summary located at the end of the chapter. This permits a student to see if their summary (conclusions) matched their predictions made while previewing the chapter or article.

Value: 35 points.

Note: This is the third version of this worksheet. Some small formatting changes have been made, ensuring that the worksheet concept is easier to understand, thereby increasing its value as a learning tool.

[Back to Top](#)

THE LASTWORD WORKSHEET

Educational Objective: Identifies the meaning of a concept in context by applying varying organizational methods and dialogue. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 a, b, c, d, e, h
- 1.2 a, b
- 1.3 f
- 1.4, b, c, d

- 1.6 b, c, d
- 1.7 c

The “LastWord Worksheet” is another tool used to help my students improve their writing and comprehension skills. A LastWord Worksheet is given to each student during all technical, chapter reviews and career related lectures. After the lesson is introduced, they are to write what they think the lesson is going to be about and what they think they already know about the material. This helps make a connection to real world applications and allows the students to use previously learned material to learn new material. In addition, this worksheet helps students identify what they understood during the lesson, and more importantly, what they did not comprehend.

Also, they are required write down three words used during the demonstration or lecture that they did not understand.

As with all written assignments, these worksheets are read over very carefully to determine if a particular word, term or concept was not understood by the majority of the class. The next day (if possible) the terms or concepts not fully understood by the bulk of class are quickly reviewed. In addition, I write a basic explanation on the worksheet for any term or concept that perhaps only one or two students did not understand.

At the bottom of every worksheet each student is required to create a quiz question with the correct answer about that day’s lesson. It can be a multiple choice, fill in the blank or short answer type question. No True/False questions are permitted. Of course, they need to provide the correct answer to the question. A short quiz is generated from these questions. In addition, the class is encouraged to use this worksheet for note taking.

More importantly, using these worksheets gives students, who would never admit they did not understand some of the material, the opportunity to have the material reviewed again. For

example, all teachers do the same thing at the end of a lesson, “Does anyone have any questions?” Most days, no one raises his or her hand. However, by utilizing this worksheet “all” students, even those who would never raise their hand in class, are raising their hands (so to speak) by asking me to repeat or clarify some point made during the lesson.

Value: 0 or 100 points. It’s graded as either complete or incomplete.

Note: This is the third version of this worksheet. Each revision requires students to add another layer to their learning. For example, the latest version asks the student to predict what the lesson is going to be about based on the instructor’s introduction; then asks if the lesson matches their prediction.

[Back to Top](#)

PREDICTION/WRITING JOURNAL AND ESSAY WORKSHEET

Educational Objective: Predict/identifies main ideas and concepts of reading in own words. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 a, b
- 1.2 a, b
- 1.3 f
- 1.4 b, d
- 1.6 a, d
- 1.7 c1.5 b, e

The “Prediction/Writing Journal Worksheet” and “Essay Worksheets” are an integral classroom tool used to help automotive technology students improve their reading, writing and comprehension skills. As a culminating activity, it provides direct linkage of established academic concepts with CTE tasks

Before reading a newspaper, magazine, Internet article or information from any media source (as long as it is automotive related) they choose, they need to complete the prediction portion of the Prediction/Writing Journal worksheet in their own words (paraphrase), using complete sentences and proper grammar based on the article title and sub-heading.

- *Before reading:*

- (1) Predict what the article they are about to read concerns

- (2) Detail what they already know about the topic, if anything

The students must write a 200-300-word essay on the topic they chose. They need to present their ideas in a clear and logical manner, include an introduction, a body, a conclusion, and show evidence of the text. This would include information from the story and their own ideas, demonstrate supporting information with specific facts, details, reasons, and examples. The same as the PSSAs, this assignment must be hand written. Students are also instructed to check for correct spelling and punctuation errors and write neatly and clearly and use only the space provided.

- *After reading:*

- (3) Write a sentence or two about what they think the author wants them to believe/or what was the main idea of the article

- (4) What they learned from the reading

- (5) How does the reading relate to his or her career choice?

Moreover, students that have never read a magazine or written any real type of essay do fantastic work. Are their essays always perfect? Of course not. However, the fact that they took the time to read an article, and then write an essay on the reading assignment is in and of it self support that this model is working in my classroom

Value: 125 points. [Back to Top](#)

TASK REFLECTION WORKSHEET

Educational Objective: Write using well-developed content appropriate language to describe a completed specific CTE task activity by analyzing and organizing (sequencing) detailed information. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 a, b
- 1.2 a, b
- 1.3 f
- 1.4 b, d
- 1.6 a, d
- 1.7 c1.5 b, e

One of the newest worksheets to be incorporated into my classroom, the “Task Reflection Worksheet” provides the student with the opportunity to reflect on his or her performance on a particular CTE task. In sentence form, students are required to answer specific questions related to the task. This worksheet is placed in the student’s presentation portfolio to help a potential employer or post-secondary school admissions officer review both their lab and classroom experiences.

This worksheet serves numerous purposes. It helps students keep track of the tasks they have mastered (they are also required to mark off the task on their Duty and Task List), it permits me to gauge a student’s progress as he or she writes an explanation of how they completed a particular task, in addition to providing self-feedback on the technical undertaking.

The questions that need to be answered are:

- Description and number of task
- What did you want to accomplish?

- What did you do?
- What did you learn?
- What are you most proud of about this completed task? Why?
- What do you need to work on or what would you do differently the next time?
- What academic concepts did you use to complete this task?

Although these seem like simple questions to answer, students need to think, and analyze what they wanted to accomplish and did they complete the task to their and the instructors satisfaction? Would a cash paying customer be satisfied with the repair or service performed? The most important thing my students need to reflect on is whether they would be satisfied with the repair or service performed if *they* were paying for it.

Value: 100 points.

[Back to Top](#)

VIDEO INFORMATION SHEET

Educational Objective: Use media for contextual learning and obtain information to complete class assignments and projects. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- a, d, e, g
- 1.2 a
- 1.3 a
- 1.4 b
- 1.7 c
- 1.8 b, c

Students are required to complete a “Video Information Sheet” while watching any type of video or multi-media presentation. This type of worksheet serves numerous purposes. First,

students stay actively engaged in the learning process while watching a video presentation. Second, it is a great classroom management tool. Because most video presentation are approximately 30–45 minutes long, the students know that the completed worksheet will be the major portion of their daily grade.

This worksheet is also very helpful when a substitute is needed. It is not considered “busy-work” because every video shown is directly related to the technical content of the course. Students realize that if this worksheet is not completed and turned in when a substitute is in the class, their grade for the day is a zero.

The worksheet has four areas that are to be filled out in sentence form:

- A brief review about the video including three specific facts
- New information learned while watching the video
- What could have made the video more interesting?
- An additional comment is also required.

Value: 100 points

Note: This is the third revision to this worksheet. In fact, this worksheet was used many years before my involvement in TRP. The major revisions to this worksheet are:

1. Write all responses in complete sentences
2. Provide precise details what was learned
3. Form opinions about the content of the material presented

[Back to Top](#)

SPEAKER INFORMATION WORKSHEET

Educational Objective: Listen to others, ask clarifying questions and synthesize information, ideas and opinions while taking notes. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 f, b
- 1.2 a
- 1.6 a, b, c, e

Similar to the “Video Information Sheet”, students are required to complete a “Speaker Information Worksheet” whenever a speaker is invited to make a presentation to the class in a formal setting. This could be a speaker from industry showing a new technical procedure or process, such as how to correctly use a tool or piece of equipment or demonstrate safety in the lab. We, also, have speakers from technical schools and colleges, business owners and others connected to the transportation industries who provide information related to the automotive industry. This type of worksheet serves numerous purposes. First, students stay actively engaged in the learning process while watching a presenter. Second, as a classroom management tool most presentation are approximately 30–45 minutes or longer, students know that the completed worksheet will be the major portion of their daily grade.

In addition to writing down five items they found interesting or learned during the presentation in sentence form, there is a place on the worksheet where the students are required to write what could have made the presentation more interesting and also to rate the speaker.

Value: Value: 0 or 100 points. It’s graded as either complete or incomplete.

Note: This worksheet was modified from a handout used in another lab area.

[Back to Top](#)

VOCABULARY BINGO!

Educational Objective: Establish a technical/industry based vocabulary by identifying and correctly using new words acquired through the study of their relationships to technical competencies. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1 a, b, c, e, d, h
- 1.2 a
- 1.3 a
- 1.6 a, b, d, e
- 1.7 b, c

This worksheet is used as a “fill-in” lesson when a school has early dismissal and there is not enough time to present an entire lesson or for participation in lab activities when there’s a school-wide assembly or speaker. The worksheet works two ways. First, from approximately 40-50 technical terms from the end of a textbook chapter, the instructor randomly chooses 24 vocabulary words. While the instructor identifies the words, students chose 24 terms from the same list and randomly write them in the 24 blocks of the “Bingo” worksheet. Then, as the words are read, if a term or word a student wrote on the worksheet is called, they check it off. When someone yells BINGO!, that is when the “learning begins.”

The class is instructed to put away their textbooks. The student who “won” must list the words to make sure they were called. Then, they must define or describe the technical function or process of the terms that made up bingo. This can work in reverse; the instructor can read the definition or technical function and the class must figure out the corresponding word to cover a bingo square..

Fortunately, when a student wins two bingo games during the same class period, they are rewarded with a hat or other small prize that I have received at trouble-shooting competitions or were given to me by a presenter.

Value: 0 or 100 points. It’s graded as either complete or incomplete.

[Back to Top](#)

FIELD TRIP RESPONSE WORKSHEET

Educational Objective: Utilize dialogue to maintain a written record of activities, course work, experience, and interests. Meets the following 11th grade PDE Academic Standards for Reading,

Writing, Speaking and Listening:

- 1.1 f, b
- 1.2 a
- 1.6 a, b, c, e

Like the “Video Information” and “Speaker Information Worksheets”, this reading form is used on an as-needed basis. When on a field trip, whether it is to the Harley-Davidson final assembly plant in York, PA., or across the parking lot to visit the North Penn High School Car Show, all students are required to complete this worksheet. Again, this form has many functions. Students stay actively engaged in the learning process during the field trip. A completed worksheet, in addition to their behavior, will be their entire grade for the day of the trip. Plus, it keeps the class aware of the activities taking place. Student are required to complete the following in complete sentences:

- If you had to give this field trip a title, what would it be? Why?
- Write a brief summary on the field trip you attended
- What new information did you learn from this trip that may be useful to you?
- What would have made this field trip more interesting?

Value: 100 points

[Back to Top](#)

DAILY TIME CARD

Educational Objective: Maintain a written record of activities, course work, experience, and interests. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.2 a, b
- 1.4 b, c, d, e
- 1.6 a, d

Although technically not a RWSL worksheet, timecards are a learning tool that I've used since my first day in the classroom. Students are required to completely fill out a timecard describing in detail their lab activities completed for that day. In the automotive service industry, technicians are paid not by what they worked on or serviced, but by what they write down they repaired; in other words, if you do not write down what you did, then you did not do it, and you will not get "paid." For the students, their "pay" is their grade.

Value: Time cards are sent home every Friday to be returned signed by the student's parents/guardians on Monday. Signed time cards are counted towards the "Employability Skills" portion of a student's grade.

The following is on every marking period syllabus:

Parents/guardians: Timecards are sent home EVERY Friday and must be signed by you and returned the following Monday. Your child's time card is how I communicate with you! Please be involved in your child's education and insist on seeing and signing their weekly timecard. Students, if you are absent on Friday, it is YOUR responsibility to ask for your timecard when you return to class. How Important Are Time Cards? Returning signed timecards is a homework assignment! Signed and returned timecards are worth up to 5 grade points each marking period!

This is on every Timecard:

Remember: Homework is a critical component for successfully completing the technical curriculum. [Back to Top](#)

CLUSTER EXPERIENCE JOURNAL

Educational Objective: Maintain a written record of activities, course work, experience, and interests. Meets the following 11th grade PDE Academic Standards for Reading, Writing, Speaking and Listening:

- 1.2 a, b
- 1.4 b, c, d, e
- 1.6 a, d

This worksheet was designed by another instructor. It is used in each of the Power Transportation (P&T) classes during the exploratory or clustering rotation. Each new student entering into the cluster is required to complete this worksheet. It helps both the instructor and student.

For the instructor, it provides feedback of what a potential student accomplished and experienced during his or her week in the lab. It, also, grants the student time to reflect on their cluster experience by answering these questions:

- What are some of the safety rules in this lab?
- What skills did you learn this week?
- What skills did you enjoy doing? Why?
- What skills didn't you enjoy doing? Why?
- What grade would you give yourself this week? Why?
- What grade do you think your instructor will give you? Why?
- Would you consider taking this class/lab? Why?

Many times a student, who thought they wanted a particular lab, will change labs, because they had an opportunity to spend quality time in a lab they may have know little or nothing about. On the other hand, many times the cluster experience only solidifies why a student decided to come to NMTCC in the first place.

No grade is issued for this worksheet. A student is not permitted to choose his or her shop unless it is completed.

[Back to Top](#)