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1. INTRODUCTION

End-of-Course Assessment Overview

The Project Lead The Way 2016–17 Assessment Program includes summative assessments for 14 PLTW high school courses. End-of-Course (EoC) Assessments are designed, using the current year’s curriculum, to be single-administration exams, taken once per course registration. The 2016–17 EoC Assessments are offered throughout the Assessment Window, which begins on November 14, 2016 and ends on June 30, 2017.

Within the PLTW Engineering, Biomedical Science, and Computer Science programs, the following courses include a single End-of-Course assessment:

- Aerospace Engineering (AE)
- Biotechnical Engineering (BE)
- Civil Engineering and Architecture (CEA)
- Computer Integrated Manufacturing (CIM)
- Digital Electronics (DE)
- Environmental Sustainability (ES)
- Introduction to Engineering Design (IED)
- Principles of Engineering (POE)
- Principles of Biomedical Science (PBS)
- Human Body Systems (HBS)
- Medical Interventions (MI)
- Computer Science Principles (CSP)
- Introduction to Computer Science (ICS)
- Computer Science A (CSA)

The EoC assessments are constructed to be used as indicators of student achievement. PLTW uses the aggregated information to make data-driven curricular and professional development adjustments.

PLTW End-of-Course Assessment Testing Policy

The PLTW End-of-Course Assessment Administration Manual sets forth policy related to the End-of-Course Assessments. For the testing process to run smoothly and fairly, we ask that the guidelines in this document be strictly upheld.

To ensure fairness for all students and consistency in score interpretations, it is important to follow all rules in this manual which allow for standardization. This will ensure all students receive the same experience while taking the EoC Assessment.

Assessment Administration Manual Overview

This PLTW End-of-Course Assessment Administration Manual for the 2016–17 school year provides valuable information regarding all aspects of PLTW EoC Assessment administration. This resource is essential for first-year PLTW teachers, but also contains substantial revisions from the previous school year, which even seasoned PLTW teachers will find important.
Introduction

The **PLTW End-of-Course Assessment Administration Manual** defines PLTW policy in the following sections:

- **1 Introduction** lists the PLTW courses that have End-of-Course Assessments for the 2016–17 school year. It also provides the assessment schedule, contact information for assistance, and a list of changes to this year’s manual. This section concludes with a list of tips for successful test administration, as a quick reference.

- **2 EoC Assessment Preparation** describes fair and unfair test preparation strategies and other information to make sure students are properly prepared to take the EoC Assessment. The section also provides information teachers and proctors need to understand before they administer an EoC Assessment.

- **3 Roster Verification and Test Codes Request** outlines the process to verify student information in the assessment system in preparation for students to experience the system demo and take the End-of-Course Assessment.

- **4 Test Administration Protocol** provides a checklist of tasks for the teacher or proctor to use before, during, and after test administration. This section includes the scripts that teachers and proctors are to read to instruct students at the beginning of a test session.

- **5 After Testing** describes what teachers and administrators can expect after End-of-Course testing is complete in terms of EoC scores and instances of score invalidation.

### Schedule of Activities

The 2016–17 PLTW Assessment Window begins on November 14, 2016 and lasts until June 30, 2017. To ensure your students’ data is included in the 2016–17 school year, it is important that your class is rostered with an end date of June 30, 2017 or earlier.

The following list provides important dates related to EoC Assessment for the 2016–17 school year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/1/2016</td>
<td>Student Rostering opens in myPLTW</td>
</tr>
<tr>
<td>11/7/2016</td>
<td>EoC Test Code registration opens in myPLTW</td>
</tr>
<tr>
<td>11/7/2016</td>
<td>Demo Codes become available in myPLTW</td>
</tr>
<tr>
<td>11/14/2016</td>
<td>Assessment Window opens for the 2016–17 school year</td>
</tr>
<tr>
<td>11/14/2016</td>
<td>EoC Score Reporting opens in myPLTW</td>
</tr>
<tr>
<td>6/30/2017</td>
<td>Assessment Window and student rostering close for the 2016–17 school year</td>
</tr>
</tbody>
</table>

The following figures show the timeline for PLTW EoC testing activities and the tasks that teachers, principals, and students need to do during specific time periods. Note that the former Principal and School Administrator roles in myPLTW have been combined into a single Site Coordinator role. The Site Coordinator as well as the Program Coordinator roles ("Coordinator") have permissions to upload and verify roster changes.
Introduction

Who to Contact for Information

After you review this manual, if you encounter issues or have questions, including when to test, whom to test, testing procedures, testing accommodations, or the PLTW Assessment Program in general, please contact the PLTW Solution Center immediately with as many details as possible. You can reach the PLTW Solution Center at 877-335-PLTW or solutioncenter@pltw.org.

What’s New in This Manual

The refreshed look is just one difference between this 2016–17 manual and last year’s edition. The entire manual has been reorganized for better usability and findability of the content. The table of contents is hyperlinked so you can easily jump to a topic of interest. Throughout the manual, you can click cross-references (indicated by a dotted underline) to go to other sections for more information.

The following list highlights areas of significant changes in the content:

- Roster change and test code registration process. See Roster Verification and Test Codes Request on page 10.
- Because of confusion about the “Assessment System Practice Test”, that concept has been completely reworked, and detailed instructions are provided for using what are now called Demo Codes. See Use the Demo Codes on page 11.
Tips for Successful EoC Assessment Administration

To ensure a smooth testing day for proctors and students during the PLTW End-of-Course (EoC) Assessment, make sure you are familiar with the process and policies in this manual. You can use this list as a quick reference of key points to remember.

• **Consider your test date.**
  Issues such as technology problems or student illness can occur. To ensure your students are able to complete the test, PLTW encourages schools not to wait until the last day of the class or the last day in the assessment window to administer the EoC Assessments.

• **Know the test rules and requirements.**
  Before you administer the assessment, thoroughly review the rules and requirements detailed throughout this document.

• **Use the assessment resources in the LMS.**
  In the Assessment module of the PLTW-PLC in the LMS, a variety of assessment resources are available to help teachers with test preparation. These resources include blueprint templates for creating exams and content maps to detail the percent of EoC Assessment covered by each unit and lesson.

• **Make sure the student testing environment meets system requirements.**
  Schools are responsible for ensuring that the requirements are met prior to testing.

• **Confirm that the correct version of the test is being requested.**
  To ensure all of your students have a successful testing experience, please review and follow the process as outlined in section 3 Roster Verification and Test Codes Request.

• **Remind students of the materials they are allowed to use during the test.**
  To eliminate any confusion or surprises on test day, inform the students ahead of time what materials they are allowed to use during the test.

• **Pay close attention when you distribute student test codes.**
  Be careful to distribute the appropriate codes to students for the EoC Assessment. The Demo Codes are different than the EoC Assessment Codes. They are labeled accordingly in myPLTW.

• **Use the Demo Codes.**
  To help students become familiar with the EoC Assessment system, use the Demo Codes. Using the Demo Codes also allows schools to do technical checks with their network and computers.
2. **EOC ASSESSMENT PREPARATION**

This section addresses how to help students prepare for the EoC and matters of test administration that teachers need to understand in advance.

**Authorized Student Materials for End-of-Course Assessments**

The following materials are the only items authorized for students to use when taking the PLTW End-of-Course Assessment:

- **The current PLTW-approved formula sheet.** The formula sheet is only used in Engineering courses. On the day of the test, the teacher/proctor must distribute newly printed formula sheets with no additional markings on them. The formula sheet is available within the course in the LMS.

- **Calculator.** If a student chooses to use a programmable type of calculator, the teacher/proctor is responsible for erasing the memory of the calculator immediately before and after each test administration. The testing platform provides a calculator for students who do not bring their own.

- **Blank scratch paper and writing utensil.** The scratch paper must be distributed by the teacher/proctor immediately before test administration. There is no maximum number of pieces of scratch paper a student may use.

After each test session is complete, the teacher/proctor must do the following:

- Collect the formula sheets and all scratch paper and erase all programmable calculator memories.

- If the students are taking the test over two test administration sessions, you must collect all materials at the end of the first section and return the formula sheets only when the students are ready to begin the second section. Scratch paper must be new for every test session.

- At the end of every test session, you may shred the scratch paper that students used.

For more information about the protocol to follow after testing, see **After EoC Assessment administration** on page 16.

The materials listed in this section are the only materials authorized for use on the End-of-Course Assessments unless an individual student’s authorized IEP or 504 plan explicitly describes additional materials needed. For more information on student accommodations, see **Student Testing Accommodations** on page 8.

**Student Preparation**

Each End-of-Course Assessment is composed of approximately 60 selected-response items. Students have a total of 80 minutes to complete the online assessment. Because most class periods do not allow for a single 80-minute testing block, the test is broken into two 40-minute sections.
To prepare students for taking the EoC Assessment, you should discuss the strategies in this section. Sound preparation strategies will foster the most effective and fair assessment for all students. Unfair preparation strategies can jeopardize the validity of the scores. For more information, see Score Invalidation on page 24.

Suggested test preparation strategies

- Help students develop good test-taking strategies for multiple-choice test items, such as:
  - Use time efficiently. Avoid spending too much time on any given item by pacing themselves.
  - Analyze multiple-choice options. Select the best (most complete and most precise) answer from the choices given.
  - Make educated guesses. Eliminate answers that they know are wrong and then take an educated guess.
  - Use cues in the item to find answers. Use a variety of cues to assist in comprehending the item and in finding the answer.
  - Use word problem strategies. Convert word problems into a workable format and change them into number sentences.

- Familiarize students with the broad content and concepts that the EoC Assessment may address:
  - Review Learning Objectives. Course Learning Objectives are located in the Assessment module of the PLTW-PLC in the LMS and within the course lesson overviews.
  - Teacher resources, such as Test Blueprints and Content Maps, can also be used to help prepare students for the concepts the test may address. These documents are located in the Assessment module of the PLTW-PLC in the LMS.

- Inform students about the test administration process ahead of time, including:
  - The exam date.
  - Materials authorized for use during the exam. See Authorized Student Materials for End-of-Course Assessments on page 5.
  - Whether students will complete the exam in one 80-minute session or two 40-minute testing sessions.
  - The number of items on each exam. See Table 3, Number of EoC Assessment Items per Section on page 18.
  - Use of the Demo Codes. See Use the Demo Codes on page 11.

Unfair test preparation strategies

It is the responsibility of PLTW teachers and administrators to read and understand this End-of-Course Assessment Administration Manual and discuss fair test preparation and test-taking strategies with their students. Teachers also need to discuss with students the consequences of unfair or unethical testing practices, such as score invalidation.
Teachers/proctors and administrators are expected to adhere to all of the following, to avoid being in breach of PLTW EoC Assessment policies:

**Note**: This list is not exhaustive.

- Do not allow students to use note sheets during the assessment.
- Do not develop, review, or distribute preparatory materials that are based on current or historic PLTW EoC Assessment items, with the exception of any items provided by PLTW for such use.
- Do not view test content prior to, during, or after a test event.
- Do not use test preparation strategies that are intended to boost student test scores at the expense of sound instruction and actual gains in student learning.
- Do not use previous years’ PLTW End-of-Course Assessments for any purpose.

**Advance Notice to Parents/Guardians**

PLTW recognizes that some schools or districts have guidelines for notification to parents and guardians regarding assessments. The school or district may want to use the following sample text to notify parents/guardians of the upcoming PLTW End-of-Course (EoC) Assessment. You may copy the following text to print on school letterhead, or you may use a letter developed at your school.

---

**Dear Parents/Guardians:**

During the 2016-17 school year, your son or daughter will take the Project Lead The Way (PLTW) End-of-Course (EoC) Assessment for the ______________ course. The PLTW EoC Assessment is a standardized test given at the completion of a PLTW course. The test measures a student’s achievement in the course, and the scores are used in many ways.

This year the PLTW EoC Assessment will be administered on ______________. It is important that your child be present. You are receiving this notice so that you can note this date on your calendar and avoid making appointments for your child that would cause him or her to miss taking the test.

Thank you for your cooperation. If you have any questions, please contact the school.

Sincerely,

---
Student Testing Accommodations

Student accommodations for testing are to be handled at the school/district level. In general, accommodations are to be handled in the same manner as you provide instruction to the students throughout the school year. PLTW provides two versions of the EoC Assessment; the test is either Timed or Untimed by the system. For information on how to request a particular test type based on the individual needs of a student, see Step 4, Verify Final Roster and Select Test Versions on page 11.

Note You do not need to alert the Solution Center if you provide any of these accommodations.

Table 2 lists some of the possible accommodations a student may need based on their IEP/504 plan.

<table>
<thead>
<tr>
<th>Accommodation Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Time</td>
<td>Student may be allowed additional time.</td>
</tr>
<tr>
<td>Flexible Setting</td>
<td>Student may take the test individually or in a small-group setting under a proctor’s supervision. Lighting, acoustics, modified or special furniture, and distraction-free locations are to be considered for flexible setting situations.</td>
</tr>
<tr>
<td>Flexible Scheduling</td>
<td>Student may take a test section during several brief sittings within one school day. The test may be administered at a time of day that is most beneficial to the student.</td>
</tr>
<tr>
<td>Flexible Presentation</td>
<td>Student may use a magnifying device, a pointer, a non-calibrated ruler or template, or other similar devices to assist in maintaining visual attention.</td>
</tr>
<tr>
<td>Read Aloud</td>
<td>Student may have a designated proctor read the questions aloud to them.</td>
</tr>
<tr>
<td>English Language Learner (ELL)</td>
<td>Student may need access to an English-to-heritage language/heritage language-to-English dictionary or a translator to read questions or directions.</td>
</tr>
</tbody>
</table>

Test Administration Practices

This section establishes PLTW policy for test administration.

Proper administration practices

• Before the test session, teachers/proctors notify students whether they will take both sections in one sitting or stop after they complete the first section.

• Teachers/proctors request the appropriate (timed or untimed) version of the exam for students based on IEP/504 plans.
  o Students are allowed a total of 80 minutes to complete the assessment, unless they are taking the untimed time version as indicated in their IEP/504 plans.
  o Before they start, the teacher/proctor tells students who require the untimed version (as indicated in their IEP/504 plan) how long they will have to complete the test. Proctors are responsible for stopping these students at the appropriate time.
• Proctors read the PLTW EoC Assessment instructions to students before starting the assessment. See EoC Administration Scripts on page 17.

• Proctors are present in the testing room at all times and monitor students to verify that no irregular testing practices occur.

Unfair practices to avoid

To avoid being in breach of PLTW EoC Assessment policies, teachers/proctors, administrators, and students are expected to adhere to all of the following before, during, and after the PLTW End-of-Course Assessments:

Note  This list is not exhaustive.

• Do not allow students more time than PLTW EoC assessment guidelines state.

• Do not require students to finish the test in less time than the system allows or their IEP/504 plan requires.

• Students shall not take screenshots or use photographic equipment of any sort to capture a test item or the entire test.

• Students shall not use resources during a test session that are not allowed by current PLTW testing guidelines. See Authorized Student Materials for End-of-Course Assessments on page 5.

• Students shall not use any software or website during a test session other than the online test delivery system.

• Teachers and students shall not question examinees about specific test content during or after a test session.

• Teachers/proctors shall not either overtly or subtly provide answers to examinees before, during, or after the test session.

• Teachers/proctors shall not change or otherwise interfere with student responses to test items.

• Do not allow students to take an assessment more than once without taking the course again.

• Collaboration (giving or receiving information) shall not occur between examinees during a test session nor after a test session with students who have not taken the test, including:
  o Students shall not overtly or subtly share answers with other students during the exam.
  o Students shall not discuss test items after the exam with other students or teachers.
  o Students shall not look at another student’s answers or information during a testing session.

• Do not permit or engage in any other activity that would harm the interpretation of the test scores, as determined by PLTW.
3. **ROSTER VERIFICATION AND TEST CODES REQUEST**

The Site Coordinator or Program Coordinator is responsible for setting up course rosters in myPLTW. (For information on that process, refer to PLTW Student Rostering Instructions available on the rostering page of myPLTW.) However, within two weeks of the EoC test date, teachers must verify that the roster is accurate and make any necessary changes. As part of this process, teachers also receive a class-specific Demo Code and student-specific EoC Assessment codes.

**Process Overview**

Figure 3 provides a high-level reminder of the steps to verify the student roster in preparation for test day. For detailed instructions to complete the process, access the Help, available when you click the down arrow next to your user name in the top-right corner of myPLTW.

**Verify Roster and Receive Test Codes**

*Note*  The former Principal and School Administrator roles in myPLTW are now combined into a single Site Coordinator role. The Site Coordinator and Program Coordinator roles (“Coordinator”) both have permissions to verify roster changes.

After the Coordinator has submitted the student roster file, take the following steps to receive test codes for your students.

**Step 1. View Roster**

**PLTW teacher reviews the student roster in myPLTW.**

The goal of this step is for your class roster to match who is in your class right before you request codes for the EoC Assessment.

**Step 2. Add, Drop, Transfer**

**Teacher submits student adds/drops/transfers.** Delete any students who are no longer in your class. Add any students who have been added to your class since initial rostering. If a student has transferred to another teacher, make sure that student has been transferred in myPLTW. For more information, access the myPLTW Help topic “How do I drop or transfer a student from a course?” under Student Rostering and Enrollment.
Step 3. Verify Roster Changes

**Site Coordinator or Program Coordinator verifies student roster changes.** To ensure that the changes are approved or denied in a timely fashion, it may be best to let the Coordinator know that they need to visit myPLTW.

**Teacher verifies the final roster.** At this point, the myPLTW class roster should exactly match the students in your class.

Step 4. Select Test Versions (Timed/Untimed)

**Teacher selects the appropriate test version for each student.** Applicable students shall take the online EoC Assessments according to guidelines established in their current Individualized Education Plan (IEP) or Section 504 Accommodation Plan. To specify test versions (timed/untimed) for your students, click **Manage EoCs.** After you select a test version for each student, click **Register** at the bottom of the list.

You may assign the untimed test version to satisfy any of the following accommodations only when specified in a student’s current IEP or 504 Accommodation Plan:

- Flexible Setting
- Flexible Scheduling
- Flexible Presentation
- Recording of Answers
- Read Aloud
- English Language Learner (ELL)

For more information about accommodations, see **Student Testing Accommodations** on page 8.

**Note**  You do not need to alert the Solution Center if you provide any of these accommodations.

Step 5. Receive Demo and EOC Assessment Codes

**Teacher requests and prints student test codes** for the EoC and the demo.

- To open a print-friendly version of the demo codes, click **Print Demo Codes.** To understand how to use the Demo Codes, see the next section.
- To open a print-friendly version of the student-specific EoC Assessment codes, click **Print Test Access Codes.**

**Use the Demo Codes**

Teachers request Demo Codes at the same time they request the EoC Assessment Codes. The Assessment System Demo only provides experience with the testing environment, so students can try out the mechanics of the system and you can troubleshoot any issues. It is important for you to allow your students to run through the system demo, but it is specifically NOT intended to give them advance knowledge of content that will be in the EoC Assessment. Demo codes have the following two purposes only:

- To familiarize students with the testing platform
- To test your system infrastructure

The following sections provide detailed instructions for each purpose.
Student familiarization

PLTW asks that teachers allow students the opportunity to become familiar with the testing platform before taking the End-of-Course Assessment. Familiarity with the appearance and functionality of the system helps students reduce test anxiety, because they will already have an idea of how to navigate the system on test day. This allows students to demonstrate their knowledge at the time of testing without having to worry about what buttons to click.

**Note**  It is best to test your school’s system at the same time that students are becoming familiar with the testing platform. See Technical check on page 13.

We ask that teachers walk through this procedure first and then allow your students to practice, as you guide them through the following steps.

1. Go to: https://assessments.pltw.org
2. In the Test Code box, enter the Demo Code (obtained in Step 5. Receive Demo and EOC Assessment Codes on page 11) and click **Login**.
3. Review your demographic information and click the **NEXT** button to continue.
4. Read the instructions and click **NEXT** at the bottom of the page.
5. In section one, point out the section timer, and explain that there may be no timer in the EoC Assessment depending on individual student IEP/504 plans.
6. Notice the progress bars at the top of the page. The upper bar shows which section of the test you are in currently, and the lower bar shows the status of each question. Also, you can click a question number to jump to that question.
7. To answer Question 1, have students try each of the following options:
   a. Click a radio button.
   b. Change the answer by clicking any other radio button.
   c. Change the answer by selecting the words or image in a specific answer (NOT the radio button).
8. To go to Question 2, click **NEXT**.
9. Point out the top of the page where the numbers of questions that have been answered are marked with a slash.
10. Answer Question 2 and click **REVIEW** at the bottom of the page to mark this question to come back to.
11. To become familiar with the calculator, click the **Calculator** link at the top of the page.
12. Click **NEXT** and continue answering questions.
13. To review a question, click the yellow highlighted question number at the top of the page.
14. When you reach the last question in the section, click **NEXT** to exit Section One.
Between Section One and Section Two, students will see a STOP sign.

**Note** When you prepare to proctor the EoC Assessment, you will determine whether the students are taking the test all at one time or over the course of two days. (See Before EoC Assessment day on page 14.) That will determine what you instruct the students to do at this point during the EoC Assessment.

15. Tell the students that at this stopping point in the actual EoC exam, if they are taking the exam in two sessions, they will click SAVE AND QUIT.

   For this demo, however, you need to simulate the students taking the test in one 80-minute session. Continue with step 16 to have your students proceed in Section Two.

16. On the STOP page, click **NEXT** to enter Section Two.

17. To become more comfortable with the system, answer all the questions and test the other functions again as desired.

18. When you have answered all the questions, click **NEXT**.

19. So that the test responses are saved properly, carefully read and follow the final steps 20–23.

   **Note** Do **NOT** click SAVE AND QUIT. At this point, the SAVE AND QUIT option does not submit your test answers. Tests that are not submitted properly will not display a score in myPLTW.

20. To confirm that you are done with this section, click **YES** on the popup message.

21. On the next page, click **NEXT**.

22. On the popup message box, click **OK** to confirm that you are ready to submit your answers.

23. Click **I AM DONE** and then click **YES**.

**Technical check**

Using the Demo Codes also provides an opportunity for schools to test their infrastructure before students take the EoC Assessment. It is best to test your school’s system at the same time that students are becoming familiar with the testing platform, as described in the previous section.

While students are in the demo, check for the following:

- Students are able to log in.
- Images in test questions are displaying.
- Everything is working as expected.

If you encounter issues, PLTW recommends that you contact your school/district IT department to ensure all settings are optimized for PLTW EoC Assessments on test day. Specific recommendations include, but are not limited to, the following:

- Clear cookies and cached files.
- Use a different browser.
- Connect to the Internet using a wired network connection. Avoid using Wi-Fi to connect to the Internet.
4. TEST ADMINISTRATION PROTOCOL

When you follow the instructions in this section for test administration, you facilitate a fair testing environment through clear directions to PLTW students and optimum test-taking conditions.

Checklist

Teachers and proctors (test administrators) should use the following as reminders, to guide the tasks they need to do surrounding EoC Assessment administration.

Before EoC Assessment day

- Become familiar with this manual and the Administration Script that you will read to students before testing begins. See EoC Administration Scripts on page 17.

- Find the number of items on the test, which you will need to insert when you read the script. See Table 3. Number of EoC Assessment Items per Section on page 18.

- If you print the test codes, keep them in a secure location to avoid improper access to EoC Assessments. Do not give test codes to students until you are ready to begin the test. See At test time on page 16.

- Remind students that they may bring only a calculator with them to the test.

On EoC Assessment day

- Remove or cover instructional materials in the classroom that may give students answers or an unfair advantage on the test.

- If possible, create a seating arrangement that will minimize the opportunity for students to look at other students’ responses or to talk during the test.

- Try to eliminate all distractions and place a Do Not Disturb sign outside the testing room. A sample for you to print is provided in Figure 4. Do Not Disturb Sign on the next page. To print the sign, enter page number “19” in the Print dialog box.
Testing in Progress
DO NOT DISTURB

Figure 4. Do Not Disturb Sign
At test time

✓ Provide students scratch paper and a new copy of the PLTW formula sheet, if applicable.
✓ Clear the memory in students’ programmable calculators.
✓ Write on the board the URL that students will use to access the test: https://assessments.pltw.org
✓ Immediately before the test begins, distribute test codes to students and inform them that you will collect the test codes from them when they start the test.

Begin EoC Assessment administration

✓ Read the appropriate test administration script to the students. See EoC Administration Scripts on page 17.

Note There are two sets of instructions—one for classes that take the test in one 80-minute session and another for classes that take the test in two 40-minute sessions. Please make sure you read the appropriate instructions to your students.

✓ Collect the test codes from students after they log in to the assessment.
✓ Actively proctor students.
✓ If a student asks you a question about an item on the test, tell them that you cannot help them and that they should answer to the best of their ability.
✓ Make note of any testing irregularities. For more information, see EoC Assessment Irregularity Reporting on page 23.

After EoC Assessment administration

✓ Collect the formula sheets and scratch paper from students.
✓ Clear the memory in students’ programmable calculators.
✓ If you are testing on different days, keep codes in a secure location and shred any used scratch paper after the first session. Do not allow students to keep their codes between test sessions. When testing is complete, shred the codes and scratch paper.
✓ Submit any unreported testing irregularities to PLTW. See EoC Assessment Irregularity Reporting on page 23.
EoC Administration Scripts

Before assessment day, review the appropriate script for the type of session you are going to administer.

One 80-minute session script

Read the following directions to students before they begin the EoC Assessment.

Note  The words in regular text are what you should read verbatim to the students. *Italic* text in parentheses are instructions to you, the teacher/proctor, only.

You are about to take the Project Lead The Way End-of-Course Assessment for *(insert course title)*. This test measures your understanding of the concepts you learned in this PLTW course.

During the test, you may use a calculator, *(if applicable, insert “the PLTW formula sheet”)*, the scratch paper provided, and a pen or pencil. The formula sheet and scratch paper will be collected at the end of the testing session. If you did not bring a calculator, you may use the calculator provided in the testing platform during the test.

To access the test platform, please go to the URL that is listed on your test code card and on the board. Please verify that your name and date of birth are correct on your test code card.

At the Login prompt, type your test code and click **Login**. On the next page, enter your first name, last name, and your date of birth. Click **Submit**.

You should now see the test instruction page. **DO NOT** proceed to the test until I tell you to do so.

*(Make sure all students are logged in to the site, the students are logged in to the correct test, and the test instruction page is displayed.)*

You will have 80 minutes to complete the test, which consists of two, 40-minute sections.

After you have completed the first section, you will reach a stopping point. When you reach this point, you can click the **Next** button to continue to Section 2.

However, after you advance to Section 2 of the test, or after the first 40 minutes have passed, you will no longer be able to go back to answer questions in the first section of the test. After the 40 minutes have passed per section, you will be locked out of that section of the test.

As you proceed through the test, you can move forward and backward within a section. Within a test section, you may mark items for review, which means you can highlight an item and return to it later within that section. If you select an answer for an item and mark it for review but do not return to it, the response you marked will be scored.

I am not able to answer any questions about the items on the test. Please answer each item to the best of your ability.

*(In the following table, find the specific numbers to use in the next statement of the script.)*
Table 3. Number of EoC Assessment Items per Section

<table>
<thead>
<tr>
<th>Course</th>
<th>Section 1 (40 minutes)</th>
<th>Section 2 (40 minutes)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Engineering Pathway</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE</td>
<td>32</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>BE</td>
<td>19</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>CEA</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>CIM</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>DE</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>ES</td>
<td>32</td>
<td>31</td>
<td>63</td>
</tr>
<tr>
<td>IED</td>
<td>31</td>
<td>30</td>
<td>61</td>
</tr>
<tr>
<td>POE</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td><strong>Biomedical Science Pathway</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBS</td>
<td>31</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td>HBS</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>MI</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td><strong>Computer Science Pathway</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSP</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>ICS</td>
<td>29</td>
<td>28</td>
<td>57</td>
</tr>
<tr>
<td>CSA</td>
<td>24</td>
<td>23</td>
<td>47</td>
</tr>
</tbody>
</table>

For this test, you will have \((x \text{ number})\) items in Section 1 and \((x \text{ number})\) in Section 2.

(\text{Note that you will need to monitor time limits for students who take the untimed test version. The system will not automatically log the students out when their time limit is reached. You are responsible for stopping the students at the appropriate time according to the applicable accommodation plan.})

All items have two to four choices. Choose the response that best answers the question. When you are finished with the test, select \text{I AM DONE} to submit your test.

Please look only at your own test. Do not look at the responses of any students who are seated near you. So that your score is an accurate reflection of your knowledge, it is important that you try your best. Do you have any questions?

You may begin.
Two 40-minute session scripts: Section 1

Read the following directions to students before they begin the EoC test.

**Note**  The words in regular text are what you should read verbatim to the students. *Italic* text in parentheses are instructions to you, the teacher/proctor, only.

You are about to take the first section of the Project Lead The Way End-of-Course Assessment for *(insert course title)*. This test measures your understanding of the concepts you learned in this PLTW course.

During the test, you may use a calculator, *(if applicable, insert “the PLTW formula sheet”), the scratch paper provided, and a pen or pencil. The formula sheet and scratch paper will be collected at the end of the testing session. If you did not bring a calculator, you may use the calculator provided in the testing platform during the test.*

To access the test platform, please go to the URL that is listed on your test code card and on the board. Please verify that your name and date of birth are correct on your test code card.

At the Login prompt, type your test code and click **Login**. On the next page, enter your first name, last name, and your date of birth. Click **Submit**.

You should now see the test instruction page. **DO NOT** proceed to the test until I tell you to do so.

*(Make sure all students are logged in to the site, the students are logged in to the correct test, and the test instruction page is displayed.)*

You will have 40 minutes to complete the first test section today. As you proceed through the test, you can move forward and backward within the section. You may mark items for review, which means you can highlight an item and return to it later. If you select an answer for an item and mark it for review but do not return to it, the response you marked will be scored.

After you have completed the first section, you will reach a stopping point. When you reach this point, **DO NOT** continue to Section Two of this test. Click the **SAVE AND QUIT** button to log out of the test.

After the 40 minutes have passed, you will be locked out of the test. You will not be able to go back and answer questions in this section.

I am not able to answer any questions about the items on the test. Please answer each item to the best of your ability.

*(In the following table, find the specific numbers to use in the next statement of the script.)*
Table 4. Number of EoC Assessment Items per Section (duplicate)

<table>
<thead>
<tr>
<th>Course</th>
<th>Section 1 (40 minutes)</th>
<th>Section 2 (40 minutes)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Engineering Pathway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE</td>
<td>32</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>BE</td>
<td>19</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>CEA</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>CIM</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>DE</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>ES</td>
<td>32</td>
<td>31</td>
<td>63</td>
</tr>
<tr>
<td>IED</td>
<td>31</td>
<td>30</td>
<td>61</td>
</tr>
<tr>
<td>POE</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Biomedical Science Pathway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBS</td>
<td>31</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td>HBS</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
<tr>
<td>MI</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Computer Science Pathway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSP</td>
<td>33</td>
<td>32</td>
<td>65</td>
</tr>
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<td>ICS</td>
<td>29</td>
<td>28</td>
<td>57</td>
</tr>
<tr>
<td>CSA</td>
<td>24</td>
<td>23</td>
<td>47</td>
</tr>
</tbody>
</table>

For this test section, you will have (x number) items.

(Note that you will need to monitor time limits for students who take the untimed test version. The system will not automatically log the students out when their time limit is reached. You are responsible for stopping the students at the appropriate time according to the applicable accommodation plan.)

All items have two to four choices. Choose the response that best answers the question. When you are finished with the test, select **SAVE AND QUIT** to save your test.

Please look only at your own test. Do not look at the responses of any students who are seated near you. So that your score is an accurate reflection of your knowledge, it is important that you try your best. Do you have any questions?

You may begin.
Today you will take the second section of the PLTW End-of-Course assessment for (insert course title).

During the test, you may use a calculator, (if applicable, insert “the PLTW formula sheet”), the scratch paper provided, and a pen or pencil. The formula sheet and scratch paper will be collected at the end of the testing session. If you did not bring a calculator, you may use the calculator provided in the testing platform during the test.

To access the test platform, please go to the URL that is listed on your test code card and on the board. Please verify that your name and date of birth are correct on your test code card.

(Make sure all students are logged in to the site, the students are logged in to the correct test, and the test instruction page is displayed.)

You will have 40 minutes to complete Section 2. As you proceed through the test, you can move forward and backward within the section. You may mark items for review, which means you can highlight an item and return to it later. If you select an answer for an item and mark it for review but do not return to it, the response you marked will be scored.

After the 40 minutes have passed, you will be locked out of the test. You will not be able to go back and answer questions in this section.

I am not able to answer any questions about the items on the test. Please answer each item to the best of your ability.

(For the specific number to use in the next statement, see the table on the previous page.)

For this test section, you will have (x number) items.

(Note that you will need to monitor time limits for students who take the untimed test version. The system will not automatically log the students out when their time limit is reached. You are responsible for stopping the students at the appropriate time according to the applicable accommodation plan.)

When you are finished with the test, select I AM DONE to submit your test. Do you have any questions?

You may begin.
Test Session Interruptions

If any of the following events occurs during a testing session, follow the procedures as outlined so students can finish the assessment.

If you have an urgent issue that is unresolved, please contact the PLTW Solution Center (877-335-PLTW). You can also complete the Irregularity Report form to alert PLTW to any testing irregularity. See EoC Assessment Irregularity Reporting on page 23.

- **Power or Internet Outage** Items answered before the outage will be saved within the system. If the local system experiences Internet connectivity problems, an error message will appear.

  When the power or Internet is restored or the next time the class meets, students should use the same test code to log back in.

- **Low Bandwidth/Computer Issues** The tests have been designed to work with a variety of systems, but PLTW is not responsible for testing irregularities that occur due to low bandwidth issues at the local network level. For more information, please access the System Requirements link on the test login page at: https://assessments.pltw.org

  If your local network has bandwidth issues, the test may not display correctly. If item questions are not loading correctly (for example, images do not display), PLTW recommends that you have the students click SAVE AND QUIT and ask the school IT department to look into possible bandwidth, proxy, or other issues. For more information on troubleshooting technical issues, see Technical check on page 13.

- **Emergency Situations** If other situations (such as fire alarm, weather emergency, student illness) arise that force a student to stop in the middle of a section, make sure the student clicks SAVE AND QUIT to ensure they capture all answered questions and can return to the section later. If the emergency situation requires a break from testing (such as needing to leave for the restroom), the student should not make any phone calls, refer to any notes, nor consult with teachers or students during this break. Do not allow the student to communicate through text messages, email, social networking sites or have access to electronic equipment or photographic equipment. Students should not leave the testing area without the proctor’s permission.

  If a student needs to complete a section at a later time, they can log back in using the same test code at a time designated by the school that is within the PLTW Assessment Window.
EoC Assessment Irregularity Reporting

PLTW provides an online form for teachers and school administrators to report any testing irregularities that occurred during the EoC Assessment process. Use the form to report unfair test preparation or test-taking strategies you observed, as well as technology-related and proctoring issues.

Examples of irregularities and issues to report are listed below:

- Images within the EoC Assessment did not display properly.
- An error message appeared during the exam.
- Teachers or students failed to comply with EoC Assessment guidelines set forth by PLTW.
- Teachers or students did not follow proper test administration procedures.
- Eligible students did not receive extended time.
- Scores did not display properly in myPLTW.

Note: This list is not exhaustive.

Report an irregularity

1. To access the irregularity report form, go to:
   https://app.smartsheet.com/b/form?EQBCT=bf910e22340b4013938136c240a5c8f

2. For PLTW to expedite a solution to your issue, please provide as much detailed information as possible regarding the testing irregularity.

3. When you have completed all the necessary information, select Submit at the bottom of the form to send the report to PLTW.
5. **AFTER TESTING**

This section describes what teachers and administrators can expect after End-of-Course testing is complete, in terms of EoC scores and instances of score invalidation. The section reiterates your responsibility to report any deviation from PLTW testing policy as soon as you become aware.

### EoC Scores Reporting

End-of-Course test scores are reported on a number scale of 1–9, along with an Achievement Indicator of Basic, Proficient, or Advanced. For each course, an *EoC Score Interpretation Guide* is available in the PLTW Assessment module of the PLTW-PLC in the LMS. Each guide is a course-specific supplement to this *EoC Assessment Administration Manual* and contains additional information about what the EoC score means and how it should be used, along with complete Achievement Level Descriptions for the course.

Teachers, Site Coordinators, and Program Coordinators will be able to view EoC scores in myPLTW within 24 hours after a student has taken the test, unless otherwise notified. To access student scores in myPLTW, teachers and administrators can click **Manage End-of-Course Assessments** and then click **View EoC Assessment Scores**. On the Assessment Scores page, you can click **Refresh Scores** at the bottom of the page to update the scores any time. If one or more students’ scores do not appear after 24 hours, please contact the PLTW Solution Center at solutioncenter@pltw.org to notify them of the issue.

### Score Invalidation

In the instance of a confirmed irregular testing event or unfair testing practice by a student, teacher, or administrator, it is PLTW policy to invalidate the test scores for the test taker(s) involved.

- Educators who are found to have used unfair test preparation or test administration practices will cause invalidation of their students’ test scores.
- Students who are found to use inappropriate or unfair test preparation methods or test-taking procedures will have their individual test scores invalidated.

Failure of students, teachers, or other school personnel to report known aberrations will be viewed as tolerance of unfair testing practices. For more information, see **EoC Assessment Irregularity Reporting** on page 23.

### Consequences of unfair testing practices

If PLTW finds evidence to suggest that unfair preparation or administration procedures occurred, PLTW may notify the principal and teacher of the individual or class. Each individual involved in the specific instance will be able to respond to PLTW in writing regarding the evidence of possible inappropriate testing practices. PLTW will consider the written response(s) when deliberating the invalidation of a student’s or class’s score(s). The ultimate decision to cancel scores is at the discretion of PLTW. If testing irregularities are determined to have happened on a large scale or with ongoing frequency, the ability of a school to continue to access the PLTW EoC Assessments may be suspended or terminated.
PLTW requires that schools notify known users of the test data that scores were invalidated, so the
users are aware of the situation and can act accordingly. Users of the data include colleges and
universities to which students apply for college credit or scholarships, state departments of education,
and any other institution to which data has been sent or from which a data request has been made and
granted. In the event that PLTW provides institutional access to a data set, PLTW will make an effort to
directly inform the end users of the score invalidation.

Local decisions regarding unfair testing practices

PLTW does not establish rules regarding any disciplinary action for students, teachers, or other school
personnel who have been proven to be involved in testing improprieties. A school’s decision to take
disciplinary action is made at the sole discretion of the local institution. PLTW reserves the right to
provide the data that is used to make local decisions, but will not comment on nor seek to alter any
determinations made locally. While all PLTW teachers and students are responsible for understanding
and following the assessment policy outlined in this document, they are also responsible for
understanding and following all additional local assessment policies as determined by their local school
district.