

(<http://csmatters.org/pd-new>) C - 09

0bC - 0b1001

Concept Review Session



Unit Concept Lessons

Revision Date: Nov 07, 2019

Duration: 90 50-minute sessions

Lesson Summary

Summary:

These 2 45-minute sessions prepare teachers to utilize College Board and other resources to help students review for the written exam for AP CS-Principles.

Objectives:

- Teachers will be aware of College Board teacher supports.
- Teachers will be aware of resources to use for the written test exam preparation
- Teachers will create scaffolded questions to prepare students throughout the school year for the rigor of AP level questions
- Teachers will identify places in the curriculum where content review would be beneficial.
- Teachers are made aware of the availability of personal progress checks and the performance dashboard to use as formative assessments, **not as high-stakes grades.**

Outline:

Teachers will engage with sample practice questions and the question bank as well as creating variations of the questions to use for student review throughout the school year.

Teachers will review the pre-approved provider syllabus, see how it meets the requirements, and identify opportunities for content review to continuously prepare students for the content knowledge needed with the rigor of AP questions.

Total Time: (90 min)

Learning Objectives

CSP Objectives

Big Idea - Professional development provides ongoing opportunities for teachers to examine a variety of classroom assessments, practice using them in their classrooms, and analyze the results to (1) understand and report on student mastery of Maryland content standards.

- ○ LO 1c - Professional development provides ongoing opportunities for teachers to examine a variety of classroom assessments, practice using them in their classrooms, and analyze the results to (1) understand and report on student mastery of Maryland content standards.

Big Idea - Professional development provides ongoing opportunities for teachers to practice working with colleagues, including other teachers, principals, counselors, social workers, and others, and emphasizes that collaboration is a means and not an end in addressing issues related to school improvement and improved student learning.

- ○ LO 3a - Professional development provides ongoing opportunities for teachers to practice working with colleagues, including other teachers, principals, counselors, social workers, and others, and emphasizes that collaboration is a means and not an end in addressing issues related to school improvement and improved student learning.

Key Concepts

The multiple choice exam covers many areas defined by the College Board study guide.

Students benefit from repeated exposure to keep content in mind and make connections between concepts in the course.

Teacher Resources

Student computer usage for this lesson is: **optional**

Practice questions online can be found at

1. <https://apstudents.collegeboard.org/courses/ap-computer-science-principles/assessment> (<https://apstudents.collegeboard.org/courses/ap-computer-science-principles/assessment>)
2. <https://www.albert.io/ap-computer-science-principles> (<https://www.albert.io/ap-computer-science-principles>)
3. <https://www.khanacademy.org/computing/ap-computer-science-principles> (<https://www.khanacademy.org/computing/ap-computer-science-principles>)
4. <https://codehs.com/info/curriculum/apcsp> (<https://codehs.com/info/curriculum/apcsp>)

Lesson Plan

TOTAL: (2 45 min sessions)

SESSION 1:

1. Review Presentation: College Board Teacher Supports (<https://docs.google.com/presentation/d/1bc-tR29yYUFV2rhOTRXngJ3VMzQsKKSnmLj4H--Eb2U/edit?usp=sharing>).
2. Introduce the College Board AP practice exam and question bank. Divide the group into teams to each focus on a group of problems in either resource. Work together to answer the questions noting where students are likely to struggle, where there might be common misconceptions. Share out from groups (30 min)

3. Discuss basic test-taking strategies and practice together on some of the most challenging questions (5 min)

4. Work with a partner to write a simplified variation of sample test problems that could be used in an early part of the curriculum. (10 min) [Homework if needed, so each team has at least 3 questions to offer]

SESSION 2:

1. Work with a partner to review additional student exam review materials (10 min)

2. Point out that CS Matters AP CS-Principles curriculum has the College Board endorsement, and meets all curricular requirements, Using the syllabus, identify times during the year to embed short, medium or full class exam review sessions. (15 min)

3. Review questions developed by other teachers. Correct any errors or lack of clarity. Select questions from a variety of sources to create a variety of test preparation sessions (15 min)

4. Demonstrate the use of student topic questions and point out that these are intended for **formative** assessment, **NOT summative** grading. Because the Topic Questions are formative, the results of these assessments cannot be used to evaluate teacher effectiveness or assign letter grades to students, and any such misuses are grounds for losing school authorization to offer AP courses.

Evidence of Learning

Formative Assessment

Teachers will share and discuss scaffolded questions and give each other feedback.



(<http://www.umbc.edu/>)



(<http://www.umd.edu/>)



(<http://www.nsf.gov/>)

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