High-Level Changes to CS Principles for 2023-24

This section explains the high-level changes for the CS Principles 2023 - 2024 curriculum. You can find a detailed list of every change to the curriculum in the following section.



New Unit Order

The Data unit has moved in between the Variables, Conditionals, and Functions Unit and the Lists, Loops, and Traversals Unit. The Algorithms Unit moved to the end of the course.



Unit Journals

Each unit now includes a Unit Journal meant to help support students' processing and meaning-making. These journals come in three formats: digital, interactive notebook directions, and physical packets.



Vocabulary Supports

There are a number of added supports to help students apply and understand the course vocabulary. These include pages in the vocabulary canvas activities throughout the course and vocab bingo at the end of most units. There is an added teacher widget to support in-class vocab review.



Better Ways to Support & Assess Student Learning

Several updates have been made to improve the teacher's ability to assess students, including added Check for Understanding questions, the new Student Responses Summary feature, and Assessment Guide.



New Resource Guides

We've created several new and updated existing resource guides to help support teachers with various topics, including viewing curriculum videos with the class, customizing Make lessons, and a new CSP syllabus.



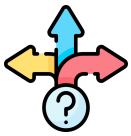
Discussion Strategies

Lesson plans and slides now include specific callouts to discussion strategies such as Retrieve-Pair-Share, Give One Get One, and Gallery Walks. These are also supported by the CSP Guide to Classroom Discussions.



Pre-Unit Pulse Surveys

Each unit now includes a 2-3 item check-in survey that can provide insights into the preferences, strengths, and motivations of your students. As a teacher, you can use this information to modify and adapt the existing curriculum.



Practice Lesson Progressions

Three of the Practice lessons, one from each programming unit, have been rewritten to give students more practice programming multiple elements of the same app. These progressions are differentiated both by topic and difficulty.



Lesson Slides

Each lesson now has a stand alone slide deck, linked in the "Resources" section of the lesson plan. The Lesson 1 lesson plan of each unit still contains a unit-long slide deck.



Project Lessons Combined

Lesson plans, slides, and all resources have been combined into single lesson plans for end-of-unit projects. There has been no change to the time dedicated to projects.

See the next page for a detailed description of the above updates for 2023-2024, followed by a list of updates for each unit.

Detailed Changes to CS Principles for 2023-2024

This section details changes made to the CS Principles between 22-23 and 23-24. For each unit, there is a listing of new lessons and updates in the next section.

New Unit Order

Update Based on Teacher Feedback

We've heard feedback from teachers that students should work with the datasets in AppLab before using them in their programs. To address this, we moved the Data unit so that it now precedes students the Lists, Loops, and Traversals unit. We hope that by working with the datasets before using them in their programs, students will be able to develop more meaningful and authentic applications of these datasets. Nothing has changed about the focus of each unit, just the sequence. The "Curriculum At-a-Glance" table below comes from the updated CSP Syllabus.

Curriculum At-a-Glance

The curriculum is divided into roughly 120 daily lesson plans which comprise 10 units of study. More detailed information about each unit can be found later in this syllabus.

Unit 1 Digital Information	Explore how computers store complex information like numbers, text, images and sound and debate the impacts of digitizing information.
Unit 2 The Internet	Learn about how the Internet works and discuss its impacts on politics, culture, and the economy.
Unit 3 Intro to App Design	Design your first app while learning both fundamental programming concepts and collaborative software development processes.
Unit 4 Variables, Conditionals, and Functions	Expand the types of apps you can create by adding the ability to store information, make decisions, and better organize code.
Unit 5 Data	Explore and visualize datasets from a wide variety of topics as you hunt for patterns and try to learn more about the world around you.
Unit 6 Lists, Loops, and Traversals	Build apps that use large amounts of information and pull in data from the web to create a wider variety of apps.
Unit 7 Parameters, Return, and Libraries	Learn how to design clean and reusable code that you can share with a single classmate or the entire world.
Unit 8 Cybersecurity and Global Impacts	Research and debate current events at the intersection of data, public policy, law, ethics, and societal impact.
Unit 9 Create PT Prep	Practice and complete the Create Performance Task (PT).
Unit 10 Algorithms	Design and analyze algorithms to understand how they work and why some are considered better than others.

What's new with CS Principles 2023-24?

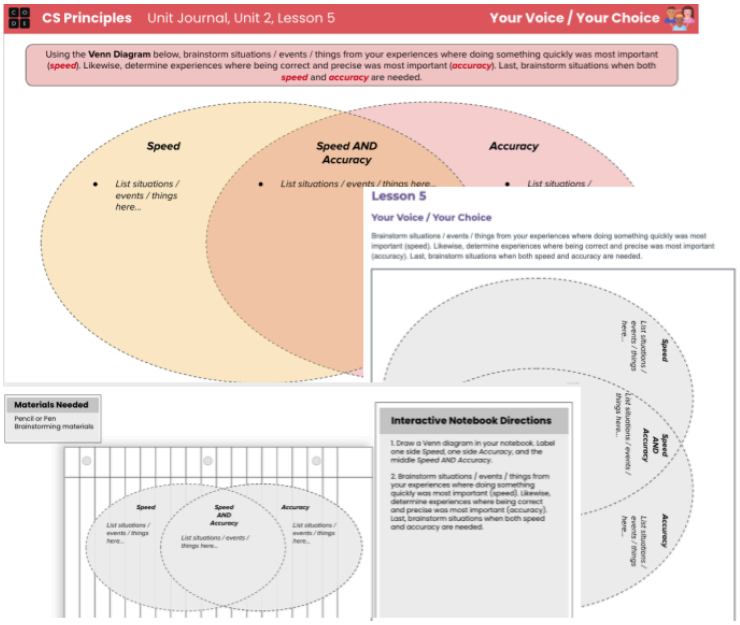
Pacing Considerations

Given the tightening of the timeline between the Create PT Due Date and the CS Principles Exam Date, the shortest unit - Algorithms - has been moved to the end of the course. We've added in pacing guidance to the unit overview pages for the later units in the course to support teachers in deciding when to have their students use the 12-hrs of class time to complete the Create PT.

Unit Journals

Templates Provided

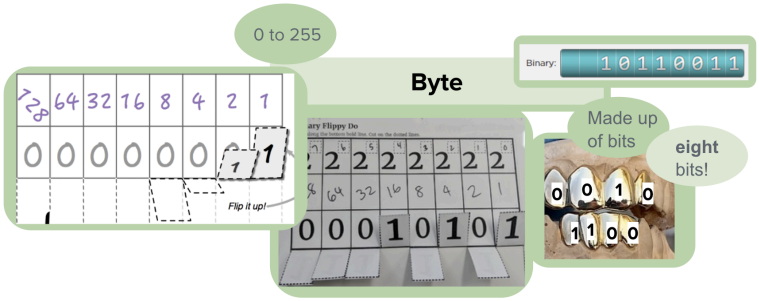
Each unit now has a Unit Journal provided in 3 different modalities: a digital journal, directions for an interactive notebook, and a physical packet journal. These resources are meant to support the implementation of journaling in all classrooms with the goal of giving students multiple ways of processing and reflection on information from the course. Learn more from the CSP Guide to Journaling.



Vocabulary Supports

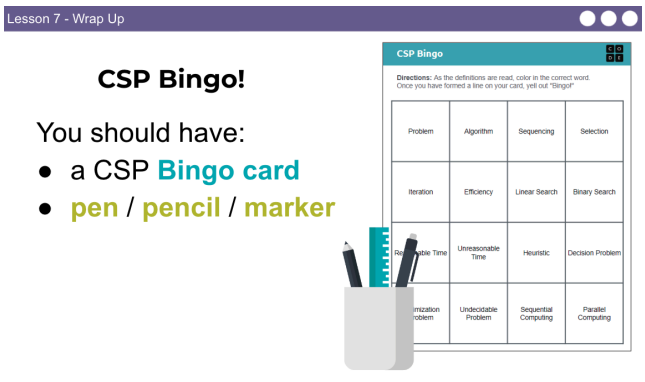
Vocabulary Canvas

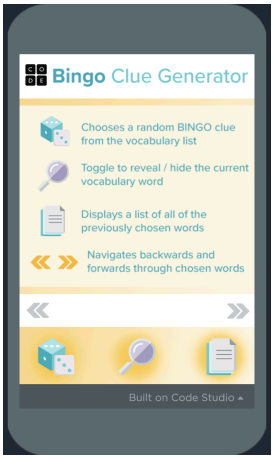
Lesson wrap-ups dealing with vocabulary now use a strategy called Vocabulary Canvas which has students build out their own definitions, representations, and connections with vocabulary words using concept maps.



Vocabulary Bingo

This review game is included toward the end of most units as an opportunity for students to practice with these terms and for teachers to formatively assess where their class is at. The curriculum includes a widget with vocabulary words already populated for each unit.

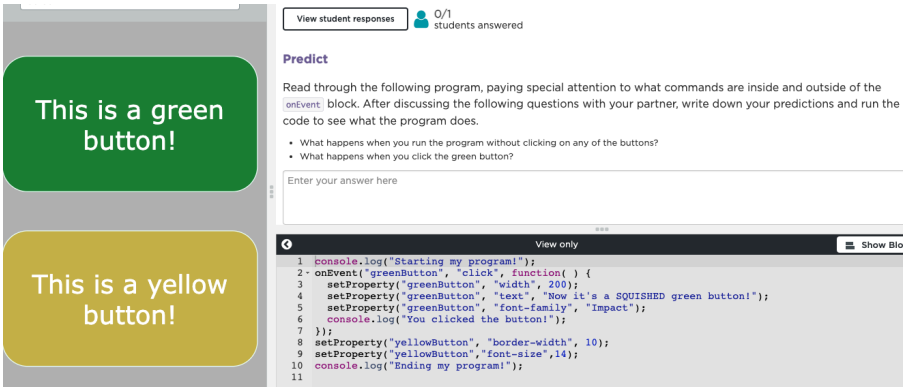




Better Ways to Support & Assess Student Learning

Check for Understanding and Predict Levels

Some lessons now include mid-lesson Check for Understanding questions meant to help support teachers in adapting instruction based on formative assessment data. In addition, the Investigate lessons in the programming units contain Predict levels where students must read code and respond to a prompt or answer a multiple-choice question before running the code.



Student Responses Summary

Teachers can now see a summary of their entire section's aggregated responses for question-based levels like Free Response and Multiple Choice levels. This makes it easier to evaluate how your class is doing as a whole and utilize different discussion strategies. See this support article for more information.

New CSP Guide to Assessment

The curriculum contains an updated CSP Guide to Assessment that lays out the features of the curriculum that teachers can use to assess student understanding and growth. The assessment also provides guidance on how to use formative assessment to guide instruction. This guide can be found in "Teacher Resources" for each unit and in "Teaching Tips" included in lesson plans.

New Resource Guides

New Guide to Curriculum Videos

We've created a whole new guide to help support teachers with the viewing of curriculum videos throughout the course: the CSP Guide to Curriculum Videos. This guide appears as a teacher resource in any lesson where students are viewing a video as a class.

New CSP Syllabus

We are saying goodbye to the CSP Curriculum Guide and have updated the CSP Syllabus to give teachers and administrators concise information about the course, requirements, suggested materials, and unit overviews.

New Guide to Code.org Values and Philosophy

Information about Code.org's values and philosophy and our pedagogical approach to those values was also formerly found in the, now retired, Curriculum Guide. We have pulled this information out and put it into the new

Guide to Code.org Values and Philosophy. This information will now be more easily accessible in the course resources.

Discussion Strategies

Updates to Support Student Engagement

We're now calling out specific discussion strategies for some of the discussions throughout the curriculum. Graphics on slides and guidance in lesson plans indicate when particular strategies are suggested. The CSP Guide to Classroom Discussions supports teachers in trying new versions and combinations of strategies.

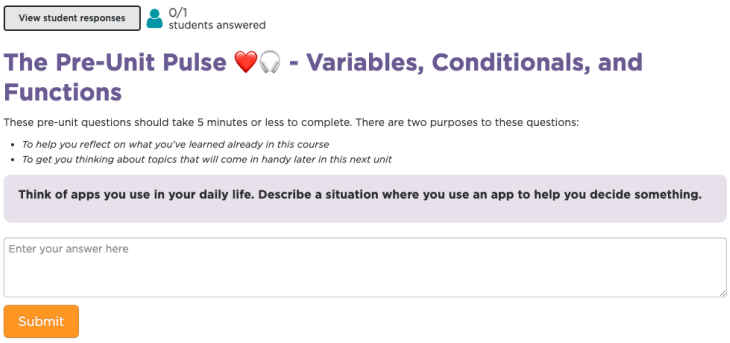


Pre-Unit Pulse Surveys

Student Reflection and Interest Inventories

Lesson 1 in most units contains a 5-minute pre-unit survey which serves two purposes:

1. To help students reflect on what they have learned
2. To get students thinking about topics that will come in handy during the upcoming unit

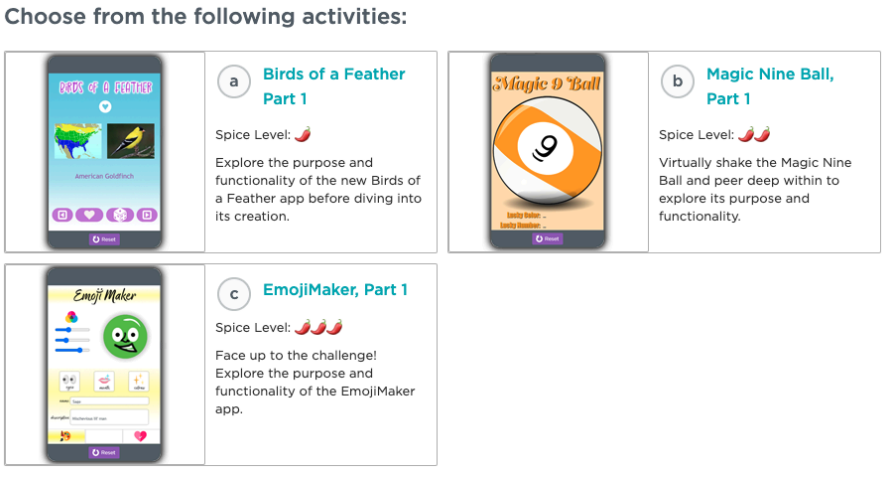


The Guide to Pre-Unit Pulse Questions contains more suggestions on how to use these questions and the responses students give to create a more personalized learning experience.

Practice Lesson Progressions

Focus on the Development Process

One Practice lesson in Units 4, 6, and 7 now includes a level progression where students build out a fully functioning program over the course of 5-7 levels. Students can choose which app they'd like to program in the lesson. In addition, the progressions are differentiated by complexity (indicated by "Spice Level"). These differentiated level progressions can help meet the needs of a more diverse range of students. In addition, the progressions students don't complete the first time through the lesson can be used for review, reteaching, or extra practice.



What's new with CS Principles 2023-24?

Lesson Slides

Updates for Consistency

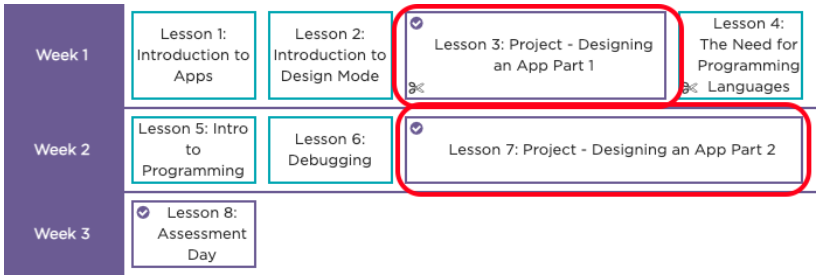
We've moved away from a single slide deck for entire units. Teachers who have taught CS Discoveries and/or CSA will be familiar with the new format of single-lesson slide decks.

Project Lessons Combined

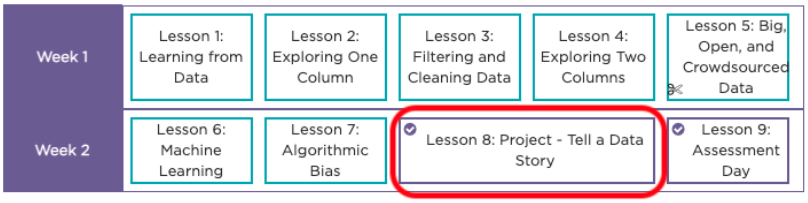
Updates for Consistency

To better align with the experience of teaching our other 6-12 courses, we've combined end-of-unit projects into single lesson plans. The curriculum still allocates the same amount of time for projects as in the 22-23 version. If you use the "🗓️View Calendar" button on the Unit Overview page, you can see how many lessons each project (or part of a project) calls for. All other lessons are designed to take 45 minutes.

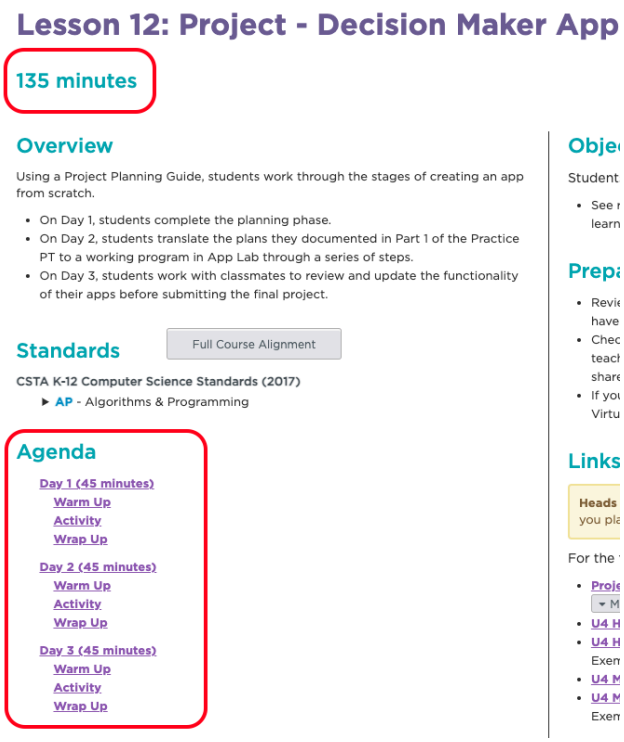
Calendar from Unit 3 - Intro to App Design



Calendar from Unit 5 - Data



Lesson Plan from Decision Maker App Project



Detailed Unit Changes to CS Principles for 2023-2024

This section details unit specific changes made to the CS Principles between 22-23 and 23-24. For each unit, there is a listing of new lessons and updates.

General Unit Lesson Plan Updates

Updates for Clarity, Consistency, and Relevancy

- The lesson plan "Overviews" now includes the lesson's purpose within the description. As a result, the "Purpose" section of lesson plans was removed.
- The "Virtual Modifications" resources have been moved under the "Preparation" section of lesson plans.
- Vocabulary now can be referenced in each lesson under the "Vocabulary" section or by going to "All Vocabulary" under the Teacher Resources dropdown.
    - Vocabulary Bingo has been added as a review activity to the lesson prior to the "Assessment Day" lesson in all units.
- Unit Journals have a place to be used in every lesson but can be adapted for the goals you have for your students.

Unit 1 - Digital Information Updates

- Lessons 4, 5, and 7 - Additional Check For Understanding Questions have been added or moved to be used mid-lesson.

Unit 2 - The Internet Updates

- Lessons 5 and 6 - Additional Check For Understanding Questions have been added or moved to be used mid-lesson.

Unit 3 - Intro to App Design Updates

- Lessons 5 - Additional Check For Understanding Questions have been added or moved to be used mid-lesson.

Unit 4 - Variables, Conditionals, and Functions Updates

- Lessons 2, 6, and 9 - A predict level has been added to help further structure the code investigations and resulting discussions.
- Lesson 6 - includes an entirely new level progression as described here.

Unit 5 - Data Updates

- Moved from Unit 9 in the '22-'23 version of the curriculum
- Lesson 2 - Includes a new video detailing the Data Analysis Process. The graphic from the video is included in slides throughout the unit.

Unit 6 - Lists, Loops, and Traversals Updates

- Moved from Unit 5 in the '22-'23 version of the curriculum
- Lesson 2 - Data Tab investigation level and "getColumn()" introduction moved from Lesson 10 to this lesson due to the new placement of the Data Unit.
- Lesson 3 - includes an entirely new level progression as described here.

Unit 7 - Parameters, Returns, and Libraries Updates

- Lesson 3 - includes an entirely new level progression as described here.

Unit 8 - Cybersecurity and Global Impacts Updates

- Moved from Unit 10 in the '22-'23 version of the curriculum

Unit 9 - Create PT Updates

- Moved from Unit 8 in '22-'23 version of the curriculum
- NOTE: In an email to their teacher community, the College Board has indicated that "by the end of summer, we anticipate announcing adjustments to our assessments that have a performance task component." Depending on the scale of these changes, this unit may undergo further changes.

Unit 10 - Algorithms Updates

- Moved from Unit 6 in the '22-'23 version of the curriculum.