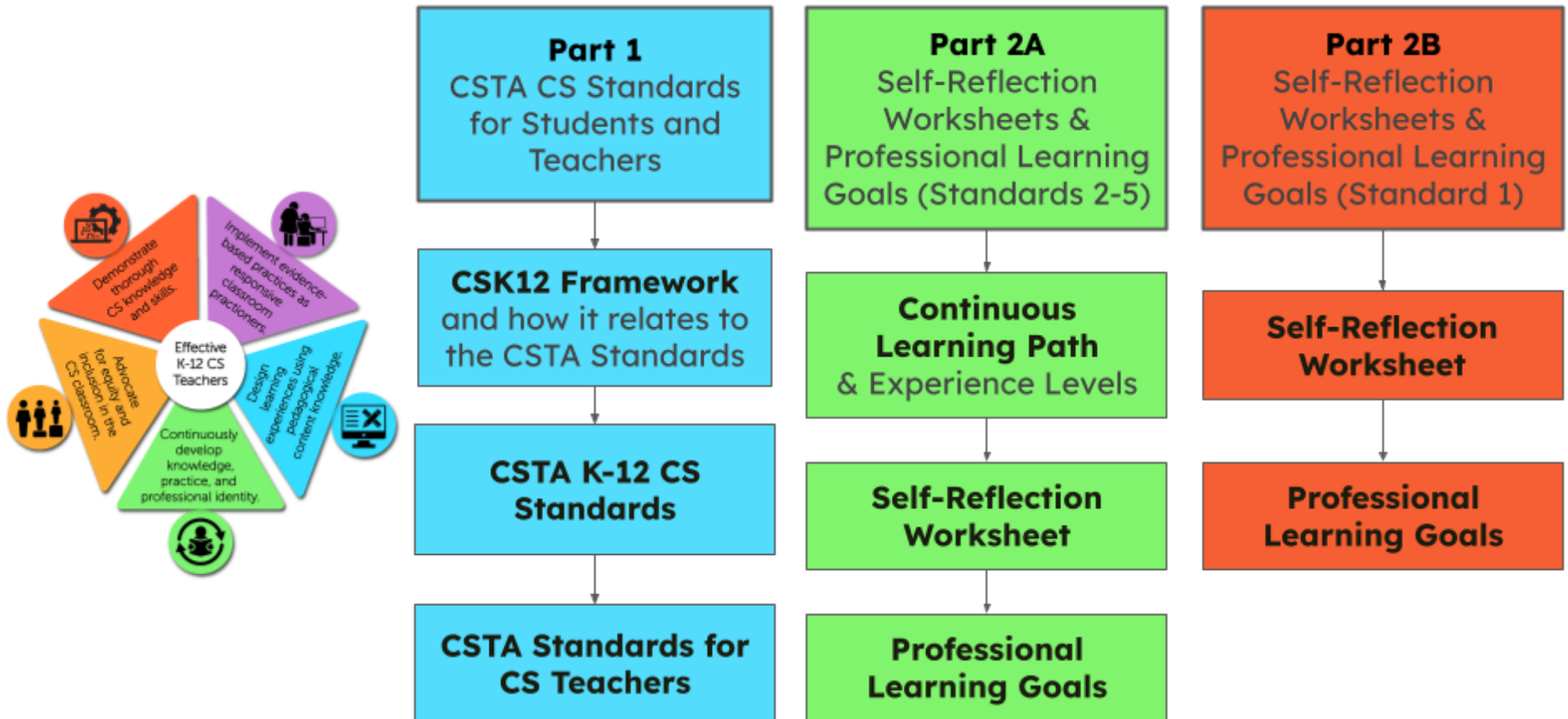


CSTA Standards for CS Teachers

Reflective Teachers PD in a Box

Facilitator's Guide



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- [Slides \(with speaker notes provided on each slide as guidance for facilitators\) - Click Use Template button to make copy](#)
- [Worksheets for participants for Standards 2-5 - Click Use Template button to make copy](#)
- [Self-Reflection Worksheet Collaboration Opportunities Spreadsheet - Click Use Template button to make copy](#)
[Use this to capture information from participants to allow them to collaborate in the future or for follow up support for them.](#)
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- [Slides \(with speaker notes provided on each slide as guidance for facilitators\)](#)
- [Use the Self-Reflection Worksheet Collaboration Opportunities Spreadsheet from Part 2A](#)
- [Worksheets for Standard 1](#)
[Standard 1 focuses on CS content knowledge and teachers will reflect on their ability to teach CS so that students can meet K-12 Computer Science Standards. If your state has its own student CS standards, you will need to replace the student standards on the worksheet\(s\) with your state's student standards; the easiest way to do this is to start with the Grades K-12 version and then copy it and delete grade levels not needed to create the additional grade level versions.](#)
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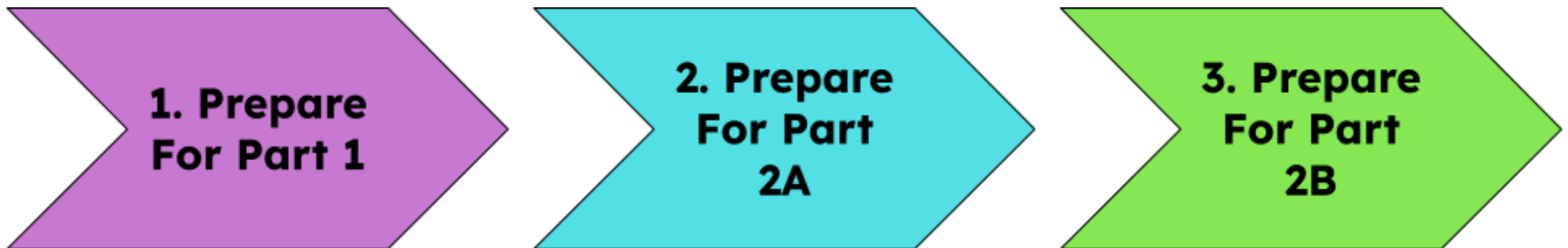
Overview

This PD (Professional Development) in a Box experience was designed to be used by states, districts, and CSTA Chapters to help CS teachers understand the CSTA Standards for CS Teachers, reflect on their teaching practice, and set professional learning goals.

This PD experience is designed in two parts with each part expected to be presented in approximately one hour. The two parts can be offered in a single two-hour professional learning experience or as a series over the period of two weeks or two months. You could also break Part 2 into even shorter experiences by focusing on one standard a week or month.

Since this is a multiple part PD opportunity, we recommend recording sessions to allow those who were not able to attend all parts. This will allow participants to catch up to the rest of the group without being lost in the process.

Facilitators should complete the following steps when using the PD in a Box materials.



Prepare For Part 1

CSK12 Framework, K-12 CS Standards for Students, CSTA Standards for Teachers

Create Copies of Resources for Part 1

Resources have been created in Google Workspace. We recommend that you make a copy for yourself of all of the resources. This will allow you to personalize each resource for your purposes. To create a copy of the resources:

1. Sign in to your Google Account
2. Click on each link below to make a copy of each resource:
 - [Slides](#) (with speaker notes provided on each slide as guidance for facilitators) - Click Use Template button to make copy
 - [Part 1 Survey](#)

Goals for Part 1

- Introduction to the K-12 CS Framework including:
 - Core concepts and practices
 - How the K-12 CS Framework informed the creation of the CSTA K-12 CS Standards
- Exploration of how the CSTA K-12 CS Standards drive Standard 1 of the CSTA Standards for CS Teachers
- Exploration of standards 2 through 5 of the CSTA Standards for CS Teachers

How to prepare for Part 1

1. Spend some time reviewing your understanding of the [K-12 CS Framework](#), and [CSTA K-12 CS Standards](#) or your state's student CS standards.
2. Update slide 2 with information about the facilitators of the session.
3. Update the appropriate slides to reflect your state standards, if your state has its own computer science standards.
4. If you are presenting in person, you may want to print copies of the K-12 CS Standards for easier review.
5. Edit your copy of the Part 1 Survey to remove questions that don't apply, change or delete questions that are not applicable, and add any additional questions needed.
6. Replace the survey link on the last slide with a link to your copy of the survey. This is needed even if the survey was not changed in any way. Otherwise, you will not be able to access your data.

Tips for facilitating Part 1

Throughout the slides, we have included discussion questions. Below are a few ideas for engaging participants in these discussions. You may choose to go with one option, a combination of all of the ideas, or select your own method for engagement.

- Use an app or website like [Padlet](#), [Lino](#), or [Figjam](#) - Pre-organize for each discussion. This allows participants to process their learning and see how others are interacting with the standards.

- Breakout Rooms/Tables - In the event you choose to go with breakout rooms or have participants sit at specific tables, if in person, we recommend that you recruit CS content experts to facilitate the breakout rooms/tables. Organizing participants by grade bands or school level allows participants to share ideas with others with similar jobs.
 - Recruit facilitators to split into one of the following options:
 - 3 breakout rooms (Elementary, Middle, and High)
 - 5 breakout rooms (K-2, 3-5, 6-8, 9-12)
- Chat Waterfall - This is a great way to provide time for all participants to reflect and answer without using too much professional learning time.
 - Ask a question, but ask that everyone not hit enter upon answering the question to allow others time to think. After one to two minutes, ask everyone to share their response by pressing enter. The answers cascade like a waterfall.

Prepare For Part 2A

Continuous Learning Path, Standards 2-5 Self-Reflection Worksheets, Professional Learning Goals for Standards 2-5

Create Copies of Resources for Part 2A

Resources have been created in Google Workspace. We recommend that you make a copy for yourself of all of the resources. This will allow you to personalize each resource for your purposes. To create a copy of the resources:

1. Sign in to your Google Account
2. Click on each link below to make a copy of each resource:
 - [Slides](#) (with speaker notes provided on each slide as guidance for facilitators) - Click Use Template button to make copy
 - Worksheets for participants for Standards 2-5 - Click Use Template button to make copy
 - [New Teacher and New to Teaching Computer Science](#)
 - [Experienced Teacher but New to Teaching Computer Science](#)
 - [New Teacher with Computer Science Experience](#)
 - [Experienced Computer Science Teacher](#)

- [Self-Reflection Worksheet Collaboration Opportunities Spreadsheet](#) - Click Use Template button to make copy Use this to capture information from participants to allow them to collaborate in the future or for follow up support for them.
- [Part 2A Survey](#)

Goals for Part 2A

- Introduce Continuous Learning Paths For CS Teachers and Teacher Experience Levels
- Complete Self-Reflection Worksheet for Standards 2-5
- Set Professional Learning Goals
- Establish Collaboration Opportunities

This professional learning opportunity continues on from Part 1. If this is offered on a different day than Part 1 of this PD, highlight the K-12 CS Standards and CS Standards for Teachers.

How to prepare for Part 2A

1. Spend some time reviewing your understanding of the Continuous Learning Paths for CS Teachers, Teacher Experience Levels, and the Self-Reflection Worksheets.
2. Update slide 2 with information about the facilitators of the session if Part 2A is being presented at a different time than Part 1.
3. Edit your copy of the Part 2A Survey to remove questions that don't apply, change or delete questions that are not applicable, and add any additional questions needed.
4. Replace the survey link on the last slide with a link to your copy of the survey. This is needed even if the survey was not changed in any way. You will not have access to the data if you do not make your own copy of the survey and link to it.

Tips for facilitating Part 2A

The focus of Part 2A of this professional learning opportunity is to have participants complete (or at least begin to complete) their own Self-Reflection Worksheets for Standards 2 through 5.

To help participants feel more comfortable asking questions about the worksheets and the standards, it can be a good idea to have participants working in small groups organized by experience level.

- New Teacher and New to Teaching Computer Science

- Experienced Teacher but New to Teaching Computer Science
- New Teacher with Computer Science Experience
- Experienced Computer Science Teacher

Each small group should have a facilitator with CS content knowledge and skills and preferably familiarity with the Standards for CS Teachers.

Throughout the slides, we have included discussion questions as a wrap-up for each standard. Participants will already be in small groups for these questions. Below are a few ideas for engaging all participants in these discussions. You may choose to go with one option, a combination of all of the ideas, or select your own method for engagement.

- If in person, have participants share with a partner and then have a few participants share with the small group.
- Use an app or website like [Padlet](#), [Lino](#), or [Figjam](#) which you have pre-organized for each discussion. This allows participants to process their learning and see how others are responding. This can work for both virtual and in-person learning opportunities.
- Chat Waterfall - This is a great way to provide time for all participants to reflect and answer without using too much professional learning time during virtual learning opportunities.
 - Ask a question, but ask that everyone not hit enter upon answering the question to allow others time to think. After one to two minutes, ask everyone to share their response by pressing enter. The answers cascade like a waterfall.

We have also created a spreadsheet called [Self-Reflection Worksheet Collaboration Opportunities](#) with a tab for each standard. This is a great way to help connect teachers who have identified growth areas with those who have identified those same areas as strengths; this could be self-organized or used as a start for a more formal mentor program. As part of the discussion following each standard, you can ask participants to include one or more topics they are willing to share about their strengths or areas of growth, which could lead to ongoing collaboration. This can be a great way to develop ongoing support and collaboration. Don't forget to make your own copy of the [Self-Reflection Worksheet Collaboration Opportunities](#) and share the copy of your link. Discussion (do after each standard):

- What are your areas of strength?
- What are your opportunities for growth?

Prepare For Part 2B

Standard 1 Self-Reflection Worksheets, Professional Learning Goals for Standard 1

Create Copies of Resources for Part 2B

Resources have been created in Google Workspace. We recommend that you make a copy for yourself of all of the resources. This will allow you to personalize each resource for your purposes. To create a copy of the resources:

1. Sign in to your Google Account
2. Click on each link below to make a copy of each resource:
 - [Slides](#) (with speaker notes provided on each slide as guidance for facilitators)
 - Use the Self-Reflection Worksheet Collaboration Opportunities Spreadsheet from [Part 2A](#)
 - Worksheets for Standard 1

Standard 1 focuses on CS content knowledge and teachers will reflect on their ability to teach CS so that students can meet K-12 Computer Science Standards. If your state has its own student CS standards, you will need to replace the student standards on the worksheet(s) with your state's student standards; the easiest way to do this is to start with the Grades K-12 version and then copy it and delete grade levels not needed to create the additional grade level versions.

 - [Grades K-12, Ages 5-18](#)
 - [Grades K-5, Ages 5-11](#)
 - [Grades 6-8, Ages 11-14](#)
 - [Grades 9-12, Ages 14-18](#)
 - [Part 2B Survey](#)
3. Complete an example worksheet from the viewpoint of at least one experience level of teacher. You will use this as you facilitate the workshop.

Goals for Part 2B

- Complete Self-Reflection Worksheet for Standard 1
- Set Professional Learning Goals for Standard 1
- Establish Collaboration Opportunities

This professional learning opportunity continues on from Part 2A. If this is offered on a different day than Part 1 and/or Part 2A of this PD, highlight the K-12 CS Standards and CS Standards for Teachers.

Standard 1 focuses on CS content knowledge and skills and rather than reflecting on the five indicators within the standard, teachers are asked to reflect on their ability to teach CS so that students can meet K-12 Computer Science Standards. Because of this tie to the student standards, the worksheet for Standard 1 often needs modifying to include state standards rather than the [CSTA K-12 Computer Science Standards](#).

How to prepare for Part 2B

1. Spend some time reviewing your understanding of your state's student CS standards or the [CSTA K-12 Computer Science Standards](#), if your state does not currently have student CS standards.
2. Update slide 2 with information about the facilitators of the session if Part 2B is being presented at a different time than Part 1 and/or Part 2A.
3. If your state has student CS standards, make sure to:
 - Update your copy of the [Standard 1 All Grade Levels Self-Reflection Worksheet](#) to reflect your state's standards.
 - Create copies of other grade level versions from your updated all grade levels worksheet by creating copies and removing tables or rows for grade levels not needed on the copies.
 - Replace the links to documents on slide 5 with links to worksheets with your state's standards.
4. Edit your copy of the [Part 2B Survey](#) to remove questions that don't apply, change or delete questions that are not applicable, and add any additional questions needed.
5. Replace the survey link on the last slide with a link to your copy of the survey. This is needed even if the survey was not changed in any way. You will not have access to the data if you do not make your own copy of the survey and link to it.
6. Make sure that you have created a completed Standard 1 Self-Reflection Worksheet that can be shown as an example in breakouts. It won't be possible to show a screenshot of the worksheet like we have done for Standards 2 through 5 since there are many student standards so having an example to show can be helpful.
7. Recruit CS content experts to help facilitate small groups (in breakout rooms or at different tables if in person) organized into 3 small groups by school level (Elementary, Middle, and High) or in any other way appropriate to your school, district or state.

Tips for facilitating Part 2B

The focus of Part 2B of this professional learning opportunity is to have participants complete (or at least begin to complete) their own Self-Reflection Worksheet for Standard 1.

To help participants feel more comfortable asking questions about the worksheets and the standards, it can be a good idea to have participants working in small groups organized in one of these ways:

- 3 small groups by school level (Elementary, Middle, and High)
- Other, as appropriate to your school, district, or state

Each small group should have a facilitator who has CS content knowledge and skills along with familiarity of the K-12 CS Standards (CSTA or your state) and, preferably, the Standards for CS Teachers.

Throughout the slides, we have included discussion questions as a wrap-up for each content area related to the K-12 CS Standards. Participants will already be in small groups for these questions. Below are a few ideas for engaging all participants in these discussions. You may choose to go with one option, a combination of all of the ideas, or select your own method for engagement.

- If in person, have participants share with a partner and then have a few participants share with the small group.
- Use an app or website like [Padlet](#), [Lino](#), or [Figjam](#) which you have pre-organized for each discussion. This allows participants to process their learning and see how others are responding. This can work for both virtual and in-person learning opportunities.
- Chat Waterfall - This is a great way to provide time for all participants to reflect and answer without using too much professional learning time during virtual learning opportunities.
 - Ask a question, but ask that everyone not hit enter upon answering the question to allow others time to think. After one to two minutes, ask everyone to share their response by pressing enter. The answers cascade like a waterfall.

We have also created a spreadsheet called *Self-Reflection Worksheet Collaboration Opportunities* with a tab for each standard. **You should use the same copy of this spreadsheet for both Part 2A and Part 2B.** This is a great way to help connect teachers who have identified growth areas with those who have identified those same areas as strengths; this could be self-organized or used as a start for a more formal mentor program. You can have participants fill out this worksheet after each content area or do it after all content areas have been completed. Ask participants to include one or more K-12 CS Standards or CS standard content areas they are willing to share about their strengths or areas of growth,

which could lead to ongoing collaboration. This can be a great way to develop ongoing support and collaboration. If you do not have a copy of this spreadsheet yet be sure to make your own copy of the [Self-Reflection Worksheet Collaboration Opportunities](#) and share the copy of your link on appropriate slide(s).

Suggested Follow-up

The process of reflecting on practice and setting Professional Learning Goals should not be a “one and done” thing. Below are some ideas of ways to follow-up once this PD has been completed:

- Plan follow-up sessions to revisit learning goals and set new goals.
- Host professional learning opportunities related to specific standards depending on the needs of participants.
- Create a mentor program using **your** copy of the [Self-Reflection Worksheet Collaboration Opportunities spreadsheet](#).
- Check in with participants on the [Chapter Community on the CSTA website](#).
 - “Who is working on Standard 1 on their Self-Reflection Checklist?”
 - “What professional learning have you signed up for and/or attended to build your areas of growth?”