



Developing District K-12 Pathways in Computing: the 4Cs Pilot

Time & Cost

Using a hybrid consulting model, Digital Promise wants to support your district in identifying the best strategies and implementation models within your unique context to develop a comprehensive K-12 Computational Thinking (CT) pathway. The work occurs in three parts over a 6-9 month timeframe. The associated time, cost, staffing, and deliverables of each stage is listed below, with a more detailed overview

Key Stages

- **STAGE #1**
Comprehensive Computational Thinking District-Wide Asset Mapping
 - **DIGITAL PROMISE STAFF:** 3
 - **TIME:** 2 weeks (virtual)
 - **COST:** \$4,000
 - **DELIVERABLE:** Asset Mapping Review Meeting & Associated Deck
- **STAGE #2:**
Vision-casting: Fundamentals of a District-specific CT Pathway
 - **DIGITAL PROMISE STAFF:** 3
 - **TIME:** duration 3 days on site at district
 - **COST:** \$16,000, including travel
 - **DELIVERABLES:**
 - District “Grounding” Document
 - Draft K-12 Asset Mapping .
 - 6-month Strategic Plan:
- **STAGE #3:**
Wrapping-Up: Summary Evaluation, League Presentation/ Certification, & Broader Networking/ Dissemination
 - **DIGITAL PROMISE STAFF:** 2
 - **TIME:** duration 1-2 weeks (virtual)
 - **COST:** \$2,500
 - **DELIVERABLES:**
 - Summary Evaluation via District Exit Interviews/ Survey Feedback
 - Recommendations for further design and implementation of CT Pathway
 - Networked Cohort Meetings with 8 other CT Pathways districts, 3 monthly meetings Jan-Mar
 - League of Innovative Schools Presentation (March 2025)
 - Recognition at 2025 League Meeting
 -
 - Future opportunities to continue collaboration and participation with Digital Promise and CT Pathways Network Cohort to continue advancing CT in your district
 - Ongoing virtual cohort meetings and strategy sharing

- Future consultation and strategy design opportunities with Digital Promise
- Tentatively - CT Pathways Network Learning Convening in Summer 2025

STAGE #1 (approx 15 hours total; duration 1-2 weeks)

Comprehensive Computational Thinking District-wide Asset Mapping

In this phase we are capturing the essential *Why?*, *What?*, and *How?* of a potential K-12 for the interested districts. The asset mapping process essentially represents the baseline three stages of pathways work: *Plan*, *Build*, and *Implement*. A designated point of contact (POC) from Digital Promise will lead the diagnostic with the district. The Digital Promise lead will be a member of our CT Pathways team with experience in CT implementation and research in districts.

- **Pre-Meeting Survey:** Prior to the kick-off meeting (below) a district representative (or representatives) will complete a brief (approx. 20 item) survey, outlining three areas:
 - **Why?** *Identify your short-term and long-term goals for a K-12 CT Pathway*
 - **What?** *What district-specific programs and activities (computing or otherwise) can be leveraged to support the Pathways initiative and ensure it is not simply an “add on” but a way to coalesce district efforts?*
 - **How?** *Identify the key people in the district who can support such work and consider the district's broader timeline for such efforts.*
- **Check in w/ District Lead:** Prior to the kick off call the district, with support from the Digital Promise diagnostic lead, will designate a **district Point of Contact**, ideally someone who leads CT or CS initiatives in the district and conduct a brief interview/check in (10-15 min). The district will identify a **Project Team** who will participate in the diagnostic process (below). This team will include curricular and pedagogical expertise on each grade level (elementary, middle, and high), as well as representative district and school leadership. *Depending on district size, this team will range from 5 - 8 individuals.* [Example teams.](#)
- **Kick off Virtual Meeting:** As part of the diagnostic process, there will be a 1 hour Kick off Meeting via video conference scheduled and facilitated by the DP diagnostic lead. The Kick-Off call will be facilitate via a slide deck and cover the following:
 - Introductions (District & DP)
 - The Goals of the Diagnostic Assessment
 - An overview of the *Why? What? & How* based on Timeline for the Diagnostic, including reporting and dedicated review
 - Remaining Q&A
- **Diagnostic Process:** Over the **course of 2 weeks**, the Diagnostic will entail three steps, each of which separate and distinct meetings:
 - **Talking Vision** - The DP Team engages **in** a series of 15-20 minute individual interviews with each team member which examine overall goals for the CT Pathway and how it aligns to existing initiatives; the goal is twofold:
 - Understand and get to know the team itself and individual roles in the district
 - Commonalities and differences in vision
 - **Taking Inventory** - Using the [SCRIPT tool](#), the district team will further outline goals/values and plan the pathway by identifying an equity goal and formally identify the team of teacher, school, and district leaders to establish a vision and goals for a CT Pathway aligned within existing initiatives.
 - **Introduction to Competency Mapping** - The district team learns the basics about Competency Mapping and Pathways as a means to identify learning opportunities

and integration points for computing across multiple disciplines in every grade K-12. This map defines a CT Pathway that is unique to each school or district, and aligned to district, state, and national standards.

*** Deliverable from Stage #1:**

- ★ **Draft K-12 Asset Mapping** - based on the existing template, the district will have made a draft mapping of its K-12 CS/ CT offerings per grade band; while still a draft, the document represents a “nuts & bolts” starter that is district specific and offers the essential “blueprint” upon which to frame future teacher PD and broader district capacity.
- ★ **Asset Mapping Review Meeting & Associated Deck** (approx 25-30 slides deck)
DP will lead a 1.5 hour meeting reviewing these three components w/ district team & developing of an Outline and Roadmap for the implementation process for the district.

STAGE #2 (approx 80 hours total, incl. prep & follow-up work; duration 3-3.5 days on site at district)

Vision-casting: Fundamentals of a CT Pathway

In this initial phase we move with the district from the underlying *Why?* That was articulated in the Diagnostic to the essential *What?* in terms of (i) unpacking what we mean by districtwide CS and CT, (ii) connecting it to existing district initiatives, and (iii) developing a preliminary district-specific K-12 mapping of competencies.

As noted above, this work entails 2 DP consultants **traveling to the partnering district itself for a 3-day working session**, meeting and working with the district POC, its broader CT Pathways team, as well as relevant educators (i.e., district superintendent).

- **Day #1 - Seeing Your District & Starting to Unpack CS & CT:**

The initial day at the district will commence with an morning DP and Team Meeting in which DP returns to the Diagnostic reports, and uses the existing CT Pathways Toolkit to (i) [unpack CS & CT as concepts](#), (ii) [explain what we mean by a Pathway](#), and (iii) start some [basic groundwork \(existing initiatives/ courses/ activities\)](#) that will lead to the district begin articulating its own draft K-12 Mapping. Review Draft Mappings.

In the afternoon, DP will visit select (2-3) district schools/ classrooms, meeting with teachers/ admin/ students and observing student work via select lessons. These visits ought to correspond with the district’s current K-12 CS/ CT offerings.

- **Day #2 - Building a Conceptual Framework for CT:**

The second day at the district will start with reflections based on the prior day’s visits and continuing discussion around [existing initiatives/ groundwork within the district](#). Also key to this second day will be identifying [which students/ schools are not getting as robust access to CS/ CT? \(noticing inequities\)](#).

In the afternoon, the DP will lead a session entitled [Identifying Key Computing Competencies](#). Key to this afternoon workshop will be (i) competency articulation, and (ii) considering associated instruction/ curricular integration points on the elementary, middle, and high school levels. DP can selectively meet with teachers/ admin for a deeper dive on grade-band competencies/ scope.

- **Day #3 -Starting to Map & Looking Ahead to Teacher/ Admin Capacity**

The third and final day at the district will return to the district [Identifying Key Computing Competencies](#) and move into the [Mapping to Standards process](#) via the [template](#). District teams will break into an elementary group, a middle school group, and high school group to begin drafting mapping per grade band. Groups will review other district mappings.

In the afternoon, the DP will wrap up the three days by discussing next steps around a draft district-specific CT Pathways mapping and upcoming opportunities to link this mapping to teacher lesson/ student project via a future PD session.

*** Deliverables from Stage #2: :**

- ★ **District “Grounding” Document** - listing all existent (and aspirational) projects the district intends to correlate to its K-12 Mapping
- ★ **Draft K-12 Asset Mapping** - based on the existing template, the district will have made a draft mapping of its K-12 CS/ CT offerings per grade band; while still a draft, the document represents a “nuts & bolts” starter that is district specific and offers the essential “blueprint” upon which to frame future teacher PD and broader district capacity.
- ★ **Strategic Plan:** In collaboration with your team, we will draft a K-12 mapping of competencies unique to your district's CS/CT offerings and outline a 6-month plan by which to begin to enact this mapping within district schools and classrooms.

DP will follow up this Stage #1 site visit with a 1.5 hour (virtual) meeting reviewing the three days, the two existing deliverables, and outlining next steps in terms of educator capacity/ teacher & admin PD.

STAGE #3 (approx 11 hours total)

Wrapping-Up: Summary Evaluation, League Presentation/ Endorsement, & Broader Networking/ Dissemination

In this third and last phase, there are two priorities:

- **Summary Review (Virtual):** Through a series of short exit interviews and surveys, the Digital Promise team will review the process to date, gauge immediate next steps around district capacity to enact their strategic plan, and begin to identify associated professional development opportunities for teachers and staff.

*** Deliverables from Stage #3: :**

- ★ **Award of Completion/ Endorsement as a CT Pathways District**
 - In conjunction with the **2025 League of Innovative Schools Meeting (Pittsburgh, March 2025)**, participating school districts will be awarded a **Digital Promise Endorsement as a CT Pathways District** and have the opportunity to network with the eight other school districts who have likewise completed comprehensive K-12 mappings to date.
- ★ **Communications Dissemination Plan:**
 - The DP team will also support **district promotion of their respective CT Pathways** through a series of social media posts, blog posts, as well as potential presentations at academic and practitioner conferences, including CoSN, South x Southwest, the American Education Research Association (AERA) annual conference.