Programming the Acceleration of Computing and Equity

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K-12 Computer Science Initiative

M. A. S. S.
in collaboration with
MassCAN

Computer Science for all MA Students

- Build District-Wide K-12 CS Pathways
- Work with CS education specialists
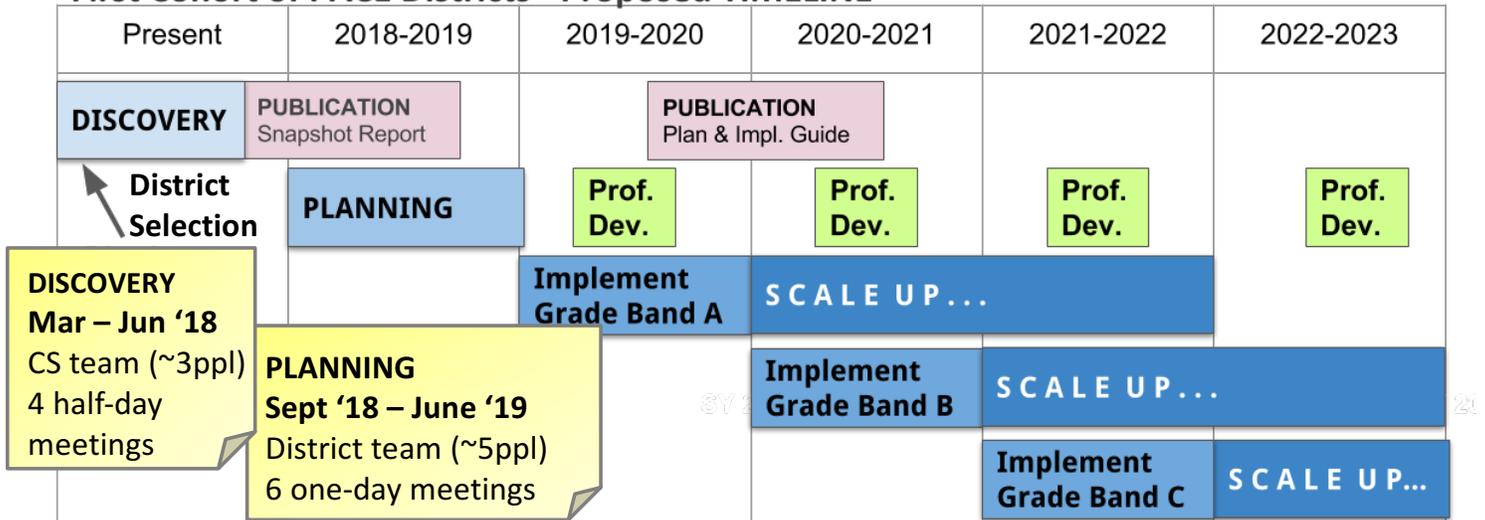- Share resources and collaborate across districts

The "30% CS Competency" Goal

Graduate 30% of high school students with *computer science competency* by 2023 with the vision that eventually all graduates reach this benchmark.

CS Competency: Receive C letter grade (min) in a course equivalent to the AP® Computer Science Principles (CSP) course, or score a 3(min) on AP®CSP

First Cohort of PACE Districts - Proposed TIMELINE

Present	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
DISCOVERY	PUBLICATION Snapshot Report		PUBLICATION Plan & Impl. Guide		
District Selection	PLANNING	Prof. Dev.	Prof. Dev.	Prof. Dev.	Prof. Dev.
		Implement Grade Band A	SCALE UP...		
			Implement Grade Band B	SCALE UP...	
				Implement Grade Band C	SCALE UP...

DISCOVERY
Mar – Jun '18
CS team (~3ppl)
4 half-day meetings

PLANNING
Sept '18 – June '19
District team (~5ppl)
6 one-day meetings

PACE Initiative Outcomes

CS Education Leaders on the ground throughout the state, with knowledge and skills to implement pathways in CS

Snapshot Report A summary of values, goals, and progress to date of CS Ed in MA, as the first PACE Lab Cohort begins

Implementation Guide Summary of learnings from PACE Lab's first planning and implementation cycle

Repository of resources for planning and implementing district-wide K-12 CS in MA; also advances shared agenda with other lead CS Education states

Benefits to PACE Districts

The first cohort of districts to participate, **Massachusetts CS Leadership Districts**, will help build collective understanding and share with other educators engaging in the work of K-12 CS education.

In **consultation with CS education content specialists**, districts will work through a research-based, **structured, planning and implementation process** to bring computer science to the whole district. District values and goals will shape decisions about quality curricula, teacher preparation, sustainability, and equity.

Guiding Principles

Evidence-based approach, grounded in current research

Focus on Equity

Outcomes are better when teams are mindful of the diversity of people they serve. This starts with being conscious of the composition of leadership teams as well as the processes by which team members contribute to the work. We will employ best known practices for making sure all voices are valued.

Districts Lead

Recognizing the unique values and goals of each district, the PACE Lab will Recognizing that school districts have their own unique values, goals and circumstances, PACE will provide a suite of services and tools to empower districts to make their own decisions about implementing computer science pathways. The PACE Lab will form in collaborative research partnerships, allowing all to engage in the same model but allowing for variation across contexts.

Systemic Change & Sustainability

Establish systematic methods to integrate, sustain, and scale-up effective practices and models. Engage the people who will be doing the work in the planning process.

Continuous Improvement

All guiding principles rely upon cycles of *continuous improvement* which means using data to continuously learn, adapt, and improve.

More to come...

The PACE Computer Science Lab's guiding principles will evolve as participating districts help to shape them.
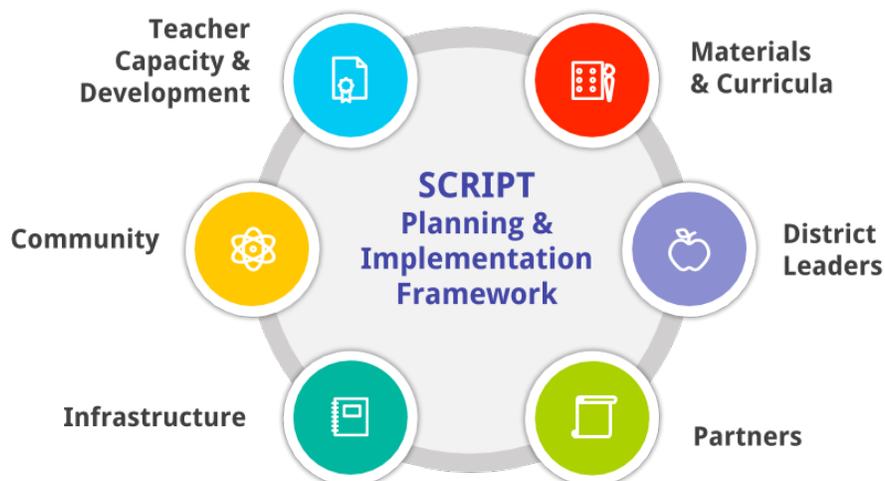
MassCAN is a member of the CS For All Consortium, SCRIPT (School Resource Implementation Planning Tool) is a research-based framework developed by CS For All. For more information go to csforall.org.