

Stakeholder Groups	Short Term Strategies, Year 1	Activities Year 1	Outcomes/Impact	Evaluation	Suggested Partner Organizations			
Teachers	Determine what teachers across disciplines need to include CT in their curriculum and provide teachers with professional development and resources	1. Identify pools of teachers in target subject areas that can be surveyed, 2. Needs assessment of teachers to find out what they need; 3. plan and share a workshop unit including resources, 4. explore existing curriculum resources for CT PD, 5. Develop partnerships for PD delivery with other institutions.	1. design and test a needs assessment tool; 2. distribute needs assessment, gather and analyze data; 3. workshop unit created and shared for download on website; 4. identify existing curriculum resources for CT PD that can serve as exemplars; 5. identify potential partners	1. needs assessment tool created; 2. assessment tool distributed and data collected from a minimum of 300 teachers; 3. needs assessment completed from a specified diversity of teachers (subject area, location, race/ethnicity, computer expertise, etc); 4. data collected are valid and useful (what this would look like depends on whether your survey is quantitative or qualitative and the questions you asked). 5. 5 entities agree to help disseminate workshop unit, 6. 3-5 exemplary curriculum resources selected, 7. 5 potential partners identified.	CSTA, ISTE, SETDA, (State Educational Technology Directors Association). NASSP (National Assoc for Secondary School Principals), NAESP ((National Assoc for Elementary School Principals), AASA (American Association of School Administrators)			
Principals	Provide descriptions of CT terms and outcomes that administrators can understand. Provide materials that will make CT understandable and relevant to school administrators. Help each principal develop a local implementation plan to increase CT across the curriculum.	1. Workshop with small number of principals in key areas within state to introduce CT descriptions and value. Show how CT is similar and different to other problem-solving methodologies by providing examples for various disciplines; 2. Principals from activity 1 create an implementation plan; 3. Principals execute their implementation plan (for example: a series of state-wide or regional workshops on critical thinking and other problem-solving strategies (inc CT). 4. Give a session on same topic at National Principals Assoc meeting.	1. Target number and diversity of principals attend the workshop; 2. Principals create their own implementation plan, 3. Principals in at least 3 districts start to carry out their plans, including a system for monitoring their progress.	Evaluate their implementation plans in terms of effectiveness, commitment, cost, organizational ability to adopt and sustain. Look for which implementations are models that could be replicated.	NASSP (National Assoc for Secondary School Principals), NAESP ((National Assoc for Elementary School Principals), AASA (American Association of School Administrators)			
School District Staff	Provide professional development opportunities for school leaders/administrators that help them understand CT and what support teachers need to implement CT	1. Build awareness at national level with articles in professional journals and other publications that are regularly read by school and district staff 2. Offer free webinars on the impact of CT in schools highlighting several model classrooms demonstrating CT in action. During webinar provide specific resources and support systems available to assist teachers in implementing CT. NOTE: These activities are priorities and need to be completed before most other activities.	1. District leaders and PD providers begin to discuss CT and the implications for their schools. An interest is stimulated in further knowledge building and information gathering about CT. 2. Leaders visualize how they can implement CT in their schools.	1. Survey district leadership on knowledge of CT and on potential for district implementation of a CT plan. 2. Number of participants in webinars and views of archives. Number of participants requesting further information and resources.	ASCD (Association Supervision and Curriculum and Development)			

State Level Ed Policy Makers (Legislators and School Board Members, Educational Associations (Admin, Teachers, Ed Tech, Curriculum, PD))	Make/Develop a convincing argument for CT as a part of the 21st Century skills requirement	1. Create clear definition sans computational thinking terms; 2. Correlate 21st Century 4C's to the areas of CT that connect; 3. Review and inform on national standards for various disciplines and technology and show where CT aligns; 4. Show connections to Common Core Math and ELA Standards; 5. Find areas in NETP (National Ed Tech Plan) that aligns with CT; 6. Find areas in reauthorized ESEA that align NOTE: These activities are priorities and need to be completed before most other activities.	1. Easy to understand statement with examples to make the case for including CT; 2. Developed visual alignment charts for 21st Century 4C; 3. Develop visual alignment charts for NETS-S (T, A), ACM Model Curriculum for K-12 Computer Science, ALA Library Standards and other standards that impact learning; 4. Develop visual alignment to Common Core Standards; 5. Develop visual to show alignment to NETP and 6. Reauthorized ESEA (when complete)	Inclusion of CT into the messages coming from 4 different groups and increased discussion of possible policies to include CT into instructional practice	SETDA, P21, ISTE, Intel Teach, DARPA CS-STEM initiative			
Federal Level Policy Makers (Dept of Education)	Look for ways to attach CT to existing policies (look for how to modify existing policies rather than focusing on creating new policies/legislations)	1. Work with PARCC (Partnership to Assess Readiness for College and Career) and Smarter Balance Data Assessment Consortium to include CT into next generation assessment being created for the Common Core to be administered in 2014 and other state level org 2) Include CT in the reauthorization of ESEA. 3. Solicit feedback from state department of educations on modification and creating of policy/legislation	1. CT strategies are part of the Common Core assessment program 2. CT strategies are embedded within the reauthorized ESEA. 3. States are discussing the inclusion of CT strategies.	Positive reception of including CT to existing policies and receives feedback from parties regarding inclusion the use of CT in policies for teaching and learning, CT is considered for inclusion in Math and ELA assessments.	CSTA, ISTE, SETDA, CoSN, DARPA CS-STEM initiative			
Students	Actively engage students in the discussion/activities to support CT	1. Develop parent focused resources, in easily understood language, that explain CT as a critical skill 2. Pull together students with expert practitioners in computational thinking to solve problems that address their community needs 3. Ensure that policies for CT engage students from the very beginning of their school experience and provide outcomes that demonstrate incremental steps 4. Advocate to build CT component into Science Fairs						
Parents	Actively engage parents in the discussion/activities to support CT	1. Develop parent focused resources, in easily understood language, that explain CT as a critical skill ; 2. identify test groups (PTAs and other school support groups) to which we will distribute the resources ; 3. identify test groups among informal education groups (such as school clubs and student activity groups) through which we will disseminate resources.	1. Resources that address the concerns of parents; 2. Information on CT widely accessible to parents through school dissemination channels; 3. information on CT widely accessible through informal education programs (such as school clubs and student activity groups).	Survey parents in test groups to determine effectiveness of message delivery as well as depth of dissemination.				
School Boards	Provide ways for school board leaders to understand how supporting CT will provide address the outcomes that believe are important to their students	1. Develop school board focused resources, in easily understood language, that explain CT as a critical skill; 2. identify individuals and groups to which we will distribute the resources.	1. Resources that address the concerns of school board members; 2. Information on CT widely accessible to school boards through school dissemination channels;	Survey school board members in test group to determine effectiveness of message delivery as well as depth of dissemination with the goal of 10% awareness level of CT as a critical skill				

General Public	Build a more extensive (informed) community that includes organizations that are already active on state standards	1. Engage the national and local Chamber of Commerce groups in dialog about CT and its potential for workforce development. 2. Build a knowledge base and collaborative relationships with regional workforce development groups. Create Public Service Announcements (PSA) that focus on a consistent CT message and begin airing at the same time across the US.	1. Chamber groups will engage the business community in promoting CT as a viable strategy to develop a 21st century workforce and to be included as a component of economic development. 2. Via PSAs, the general public will become aware of CT and will inquire at their local districts if it is being taught.	1. Survey business groups as to their knowledge and support of CT in schools as a critical 21st century skill. 2. Poll is taken to general public to find out their awareness of CT with 30% of public aware of CT.				
Media/Publications	Increase media knowledge of CT and its importance.	Write articles about this workshop and its outcomes; identify online, printed, and other media opportunities from organizations in non-CS disciplines and build relationships with those organizations; build relationships with national media organizations. NOTE: These activities are priorities and need to be completed before most other activities.	Articles will be directed toward different audiences and practitioners, e.g. L&L article for educational technology teachers, Inroads for college CS faculty, CSTA Voice for K-12 CS teachers, other outlets for non-CS, non-ed-tech populations.	At least 10 published articles and other forms of media expression.				
Schools of Education	Make Deans and faculty of Education Colleges aware of the importance of K-12 students being able to think in CT terms.	1. Bring together the Deans of top Education schools to make aware of CT and its role in a well-educated student; 2. Have sessions at national conferences for CoEd faculty on CT ideas (AERA for example).	1. 7 or 8 Deans chosen by Land Grant Deans organization, would develop implementation plans for including CT in teacher education; 2. School of Education faculty become aware of existence and issues in CT and its relation to learning theory.	1. Review plans for proposed changes in teacher education program and the change processes they will use; 2. Observe increase in CT proposals for future conferences.	ACTE (Association of Colleges of Teacher Education)			
Industry	Create and disseminate a strong business case to draw industry into partnerships in support of the efforts to embed CT in K-12	1. Develop and disseminate industry-focused resources that link CT concepts and capabilities to workplace needs and global competitiveness 2. Target industry representatives who are likely to be early supporters of K-12 CT efforts. 3. Capitalize on key reports that focus on national competitiveness and CT concepts and capabilities (Rising Above Gathering Storm, PCAST report, Running on Empty Report, etc.) to make the business case.	Increased industry understanding and support of CT concepts and capabilities and their importance in K-12, college prep, and worker preparation	A small core group of industries begin to participate in and sponsor CT initiatives				
Stakeholder Groups	Mid Term Strategies	Mid Term Activities Year 2-5	Outcomes/Impact	Evaluation	Suggested Partner Organizations			
Teachers	Provide teachers with the professional development they need (changing practice)	1. deliver professional development workshops; 2. explore multiple models for delivering CT PD; 3. expand and diversify partnerships for PD delivery	1) workshop widely accessible for teachers across the U.S.; 2) deliver CT PD using multiple delivery models/mechanisms; 3) increased access to and diversity of PD for practitioners;	1) 25 CT workshops offered each year across the U.S; 2) 3-5 models available that deliver CT PD (e.g., face-to-face, online, hybrid, independent study); 3) 60 CT PD opportunities offered nationally across the U.S.	CSTA, ISTE, other subject Associations			
Principals	Provide descriptions of CT terms and outcomes that administrators can understand. Also provide materials that will make CT understandable and relevant to school administrators.	1. Principals support CT interdisciplinary working groups in their schools; 2. Do case studies of schools with successful working groups; 3. Facilitate principals sharing successful models across state and nationally; 4. Begin to create ways to support, observe and evaluate CT in the classroom.	1. School level CT working groups are implemented in several schools in the state; 2. Several case studies to describe successful models; 3. Principals giving presentations of successful CT implementation; 4. Principals will know what to look for in classrooms (students using CT to solve problems).	1. School level CT working groups are implemented in 30% schools in the state; 2. Case studies led to at least 6 successful models; 3. Principals have given numerous (20+) presentations/publications/webinar of successful CT implementations; 4. Principals have included CT in observations in 25% of schools in US.				

School District Staff	Provide professional development opportunities for school leaders/administrators that help them understand CT and what support teachers need to implement CT	1. Provide seminars for school leaders and administrators that focus on the implementation of and potential strategies for CT in the classroom; 2. Secure funding for additional professional development in the school district; 3. Build online and face-to-face and blended PD classes for leaders and teachers in order to assure the tools, strategies and resources to successfully implement CT (this should be an OER online course that could be "given away" to districts so that they can use in their LMS to provide an indepth view of CT and using it within the existing curriculum, to help teachers make the CT connections and deepen understanding).	1. Active participation in seminars and planning for CT implementation; 2. Sustained funding that will provide CT implementation with fidelity; 3. Participation in various professional development opportunities for CT implementation; 3. OER course will provide consistency of knowledge and adoption throughout the U.S.	1. 30% + schools participating in CT professional development opportunities; 2. Adequate funding is provided for at least 30% of schools to participate in CT implementation; 3. 50% participate in CT professional development opportunities. NOTE ADDED: 25% of districts in US use OER CT online course to help teachers understand CT and find ways to naturally add to their teaching.				
State Level Ed Policy Makers (Legislators and School Board Members, Educational Associations (Admin, Teachers, Ed Tech, Curriculum, PD)	Make Develop a convincing argument for CT as a part of the 21st Century skills requirement	1. Create a variety of written, oral communications and online workshops, e.g. You Tube video (s), eblasts messages, Twitter messages, Webcasts, talking points for bloggers. 2. Disseminate the messages to Ed Week, Teacher Week, AASA, NSBA, NEA, SETDA, ISTE, CSTA, SIGCSE 3. Provide sample policies.	1. Messages used by multiple groups 2. Preliminary work on CT policy begins.	Initial policies in place or proposed policies waiting for approval in 50% of schools.				
Federal Level Policy Makers (Dept of Education)	Look for ways to attach CT to existing policies (look for how to modify existing policies rather than than focusing on creating new policies/legislations)	1. Continue to work through the US DOE, State Depts of Education and other organizations to further define and develop strategies to include CT into state standards and common assessment.	1. State Depts of Education have established committees to further develop strategies to include CT into state standards and assessments.	Dissemination of policies that reflect CT and instructional strategies needed in place in 50% of states. US DOE includes CT strategies in federal grant programs. At least two CT concepts are in the Math and ELA common assessment.				
Students	Actively engage students in the discussion/activities to support CT	1. Provide web-sites for independent student activities (self-guided, fun, non-teacher directed)						
Parents	Encourage parents to become advocates for inclusion of CT content in schools.	1. Broadly disseminate the resource(s) to PTAs and other school support groups; 2. Broadly disseminate resource(s) to informal education groups (such as school clubs and student activity groups).	1. School support groups begin to support CT related curricular efforts in their schools; 2. in locales where both school support and student activity groups have been reached, the activity groups reinforce the message with regard to the importance of CT concepts and skills.	1. Survey results show that 30% of contacted school support groups are taking some positive steps in their schools to support CT; 2. 70% of contacted activity groups report successful dissemination of CT resources to parents.	PTA,			
School Boards	Provide ways for school board leaders to understand how supporting CT will provide address the outcomes that believe are important to their students	1. Broadly disseminate school board focused resources; 2. Build relationships with individuals and groups to which we will distribute the resources.	1. School Board in several states begin to support CT related curricular efforts in their schools; 2. in districts both school support and student activity groups have been reached, the activity groups reinforce the message with regard to the importance of CT concepts and skills.	1. Survey results show that 30% of contacted school board members are taking some positive steps in their districts or states to support CT.				

General Public	Build a more extensive (informed) community that includes organizations that are already active on state standards	Leverage local and state business groups and networks to advocate at the local, state and national levels for the inclusion of CT as an integral strategy for preparing students for a 21st century workforce.	Local, state and national entities begin to integrate CT into K-12 curriculum and standards.	A scan of state standards and curriculum frameworks indicates that 30% of states have embedded CT strategies into the state curriculum.				
Media/Publications	Develop a concise media message about the importance of CT in education. Increase media knowledge of CT and its importance.	Leverage relationships with national educational media and with general media at the regional and national level to generate articles about exemplary efforts to embed CT concepts and skills across the curriculum. This includes online and print media.	Articles will be directed toward the general public and the business community to build understanding of CT and its relationship to issues of careers preparation and national competitiveness.	At least 75-100 articles and other forms of media expression will be "published" in educational and general media. These will vary in length, and some will be published in multiple venues, increasing the reach and impact.				
Schools of Education	Implementation of CT experiences into teacher education and dissemination to other schools of education.	1. Incorporate CT experiences into teacher ed classes; 2. Schools of Education develop and field test assessments for CT learning; 3. Schools of Education influence adoption of CT standards in national accreditation formats and state program approval formats.	1) Teachers understand and know how to apply CT learning in K-12 schools. 2) Influence states and government to adopt key CT assessments in standards. 3) Standards become part of national and state accreditation.	1) Evaluation by school ed faculty and K-12 teachers of their students on CT knowledge and applications. 2) 100% adoption of by states and government of CT assessments. 3) All states have CT accreditation standards.				
Industry	Facilitate school/industry partnerships that will help district school leaders and administrators understand that CT concepts and capabilities are an essential element of strong workplace preparation	1. Industry sponsors exhibitions or events (e.g. National Lab Day) where students showcase computational project/artifacts and the skills they use to develop their artifacts/solutions 2. Industry partnering with schools and districts to establish real world CT projects and internships. 3. Industry begins to provide funding for the development and dissemination of CT resources for teachers and students.	1. Industry develops a greater understanding of students' capabilities and the application of CT concepts and capabilities to industry concerns. Other stakeholders develop a greater understanding of the importance of CT to industry and therefore their children's future. 2. Industry financially supports national, state, and local CT initiatives in schools and professional development for teachers.	1. Two high level spokespeople from industry make public statements supporting CT in schools. 1 a. A small group of champions comes forward from industry and begins to organize support for embedding CT in K-12. 2. Industry begins to fund CT initiatives in schools and incentive programs to support student and teachers learning.				
Stakeholder Groups	Long Term Strategies	Long Term Activities Years 6-10	Outcomes/Impact	Evaluation	Suggested Partner Organizations			
Teachers	Provide teachers with the professional development they need (changing practice)	Acquire adequate funding to sustain ongoing PD for teachers to include CT into teaching/learning 2. Update existing CT PD workshops and courses to reflect new ideas and innovations	Teachers knowledge base relative to CT inclusion and instruction will be enhanced and increased.	Student are using CT strategies to be successful in the the workplace and to be successful in all disciplines in college.	CSTA, ISTE, other subject Associations			
Principals	Look for ways to attach CT to existing or new state (and federal) policies.	Lobby through Principal associations and interest groups to effect policy change.	CT is incorporated in state and federal policies.	50 states have CT incorporated into state policy.				
School District Staff	Provide professional development opportunities for school leaders/administrators that help them understand CT and what support teachers need to implement CT	Ongoing and consistent best practice sharing and outreach of successful CT practices and implementation plans.	Ongoing and consistent knowledge and practice of CT strategies in classrooms.	Correlation of data between schools that have widely implemented CT and student performance using multiple measures of assessment over time.				
State Level Ed Policy Makers (Legislators and School Board Members, Educational Associations (Admin, Teachers, Ed Tech, Curriculum, PD)	Make Develop a convincing argument for CT as a part of the 21st Century skills requirement	Ongoing refreshed CT examples and alignment provided for standards; 2. CT policies are reviewed and updated annually.	CT is a regular part of the curriculum through policy at all ed levels.	100% of states include CT teaching and learning approaches as a method for solving real world problems and preparing students to meet or exceed the expectations of business and industry and college readiness. (aka 21st Century Skills).				

Federal Level Policy Makers (Dept of Education)	Look for ways to attach CT to existing policies (look for how to modify existing policies rather than focusing on creating new policies/legislations)	Will have developed policies necessary to move CT into core curriculum and assessment.	CT is a part of all curriculum standards, assessments and is in regular use across the US.	50% of students are impacting the world by solving unique problems applying CT strategies.				
Students	Actively engage students in the discussion/activities to support CT							
Parents	Making parents change agents in districts and states where there has not yet been sufficient adoption of CT concepts and capabilities.	Provide two kinds of resources to parents: a) the already existing resources (developed during prior years) about CT concepts and capabilities and b) information about the process for bringing about change at the local, regional, state, and federal level (with particular focus on local change).	In school systems that are late adopters, a second wave of engaged parents and school support groups begin to advocate for local inclusion of CT concepts.	Survey results show that 60% of contacted school support groups are taking some positive steps in their schools to support CT.				
School Boards	Provide ways for school board leaders to understand how supporting CT will provide address the outcomes that believe are important to their students	Provide two kinds of resources to school board members: 1) the already existing resources (developed during prior years) about CT concepts and capabilities; 2) information about the process for bringing about change at the local, regional, state, and federal level (with particular focus on local change).	In school districts/states that are late adopters, a second wave of engaged school board members begin to advocate for local inclusion of CT concepts.	Survey results show that 60% of contacted school board members are taking some positive steps in their districts or states to support CT.				
General Public	Build a more extensive (informed) community that includes organizations that are already active on state standards	Continue to build capacity by leveraging national, as well as local and state business groups and networks to advocate at the local, state and national levels for the inclusion of CT as an integral strategy for preparing students for a 21st century workforce.	Local, state and national entities include CT in all K-12 curriculum and standards.	A scan of state standards and curriculum frameworks indicates that 80% of states have embedded CT strategies into the state curriculum.				
Media/Publications	Increase media knowledge of CT and its importance.	Leverage relationships with national educational media and with general media at the regional and national level to highlight the impact on student learning and student performance.	Articles and other forms of delivery will be directed toward the general public to increase awareness of the impact of CT on education and its relationship to issues of career preparation and national competitiveness.	Broad distribution of material across a range of media (recognizing that we cannot predict in 2010 exactly what "media" will look like in 2016).				
Schools of Education	K12 schools have cadres of CT-trained teachers who are the teacher leaders.	1. CT-aware/trained student teachers and teachers form CT learning communities and collaborations.	1. These teachers influence persistence of CT inclusion in K-12 education.	1. At least 100% more graduating HS students choose "tech" (computing-related, etc.) college majors than in 2010.				
Industry	Industry is deeply committed to and supportive of CT in schools	1. Industry provides increased support for national projects and competitions focused on interdisciplinary applications of CT; 2. Industry partnering with schools and districts to establish real world CT projects and internships; 3. Industry increases funding for professional development events for teachers.	1. Industry develops a greater understanding of student's capabilities and the application of CT skills to industry concerns. Other stakeholders develop a greater understanding of the importance of CT skills to industry and their children's future. 2. Industry financially supports national, state, and local CT initiatives in schools.	1. Five high level spokespeople from industry make public statements support CT in schools. 1 a. A large group of champions comes forward from industry and begin to organize support for embedding CT in K-12. 2. Industry provides CT initiatives in schools and incentive programs to support student learning on a large scale.				
Potential Strategies	Educational policies that include CT as a part of every student's education	Shared Vision and Common Language	School and District Level Leadership Inspired to Change	Inspiring Teachers to Change	Relevant Professional Development	Access to a Learning Community for Ongoing Support		

Make sure we are sharing a single message at the federal, state, and local level	Help computer science professionals demystify the terminology to make it more widely understandable/inclusive	Create opportunities for K-12 and post-secondary professionals (faculty, administrators) to talk	Help teachers make a solid connection between CT and their own discipline/teaching level	Facilitate the building and maintenance of professional learning communities	Make open-source tools (blogs, wikis, forums) and web-based social networks and content delivery systems available to school districts			
Make a convincing argument for CT as part of the 21st Century skills requirements	Provide descriptions of CT terms and outcomes that administrators can understand	Provide materials that will make CT understandable and relevant to school administrators	Build an incentive or reward structure (extrinsic and intrinsic) for teachers into the change process (recognize the value of teachers' personal time) Find ways to help teachers understand why CT is important to/good for their students	Provide continued and continuous support	Encourage current associations to show how CT fits into their current standards/work			
Build a more extensive (informed) community that includes organizations that are already active on state standards	Help teachers find ways to integrate CT knowledge/skills with their own current knowledge and practice	Provide ways for school level leaders to understand how supporting CT will provide address the outcomes that believe are important to their students	Address issues of student engagement and achievement	Provide funding for substitute teachers so teachers can attend professional development events	Ask associations to include a focus on CT in their conferences/workshops/prof development events			
Leverage professional organizations to advocate at the federal and state level	Present ideas and materials in terms/contexts that teachers will be comfortable with	Provide ways for school level leaders to understand how supporting CT will provide address the outcomes that believe are important to their students	Provide teachers with the professional development they need	Provide summer institutes where teachers can engage with other teachers and provide incentives for teachers to attend	Use web-based social and content delivery mechanisms			
Look for ways to attach CT to existing policies (look for how to modify existing policies rather than focusing on creating new policies/legislations)	Help all stakeholders understand/see that CT is a core competency in education	Provide professional development opportunities for school leaders/administrators that help them understand CT and what support teachers need to implement CT	Provide summer institutes	Model peer learning by having professional development offered by teachers who have computational thinking experience	Pull together kids with expert practitioners in computational thinking to solve problems that address their community needs			
Work to build CT concepts into the new Common Core Standards	Create a strong business case to draw industry into the partnership (create a business case)	Facilitate school/industry partnerships that will help district school leaders and administrators understand the need for CT skills in the workforce	Build personal relationships with teachers	Provide teachers with time to learn	Make CT a part of National Lab Day			
Work to include CT outcomes as part of the state level technology tests	Communicate with educators using the language/terminology that is common in the educational environment	Find ways to relate the need for CT in schools to what is happening/needed individual communities	Identify the "right" teachers who will embrace and model effective change	Model good pedagogy in professional development events	Create a community of practice that serves as a resource center for sharing CT resources			
Ensure that policies for CT engage students from the very beginning of their school experience and provide outcomes that demonstrate incremental steps	Leverage professional organizations to create and disseminate a shared vision		Look for early adopters as examples to inspire change	Built into all professional development that it is not necessary for teachers to know everything (intrepid teachers learn fro students too)	Actively engage parents in the discussion/activities to support CT			
Include a class on CT across disciplines (for all teachers) as part of all teacher pre-service preparation programs			Always model peer support and peer mentoring	Provide opportunities for teachers to spend time in industry setting where CT skills are valued				
Allow for different models and infusion strategies (not just wide curricular change)			Provide course materials	Implementation strategies must include building partnerships that include all stakeholders				
Advocate to build CT component into Science Fairs			Involve teachers in the development of curriculum materials (both computer science faculty and K-12 teachers)	Provide teachers with the resources to support their learning				
			Provide fund, simple exemplars to teachers to exemplify how to integrate CT effectively	Provide resources that define CT and allow teachers to recognize where they already include it in their teaching				

