

**Systems Thinking in Schools
Waters Foundation
Plan for School and District Systems Thinking Adoption and Integration**

The following 3-year plan outlines the key steps that will enable a school district to fully adopt and integrate systems thinking (ST) in classroom instruction. The plan is flexible and is open to modification based on school or district size, previous experience with ST professional development structures and leadership.

Goal for the ST Adoption and Integration Plan

This plan will gradually build the ST capacity of teachers district wide to deliver academic and lifetime benefits to students. The ST habits and tools are instructional strategies that align well with curricular standards (e.g. CCSS) and provide long-lasting skills that inform decision-making to life outside of school.

Example: Big Picture for a school system with 120 schools

School Year	Approximate # of participating schools	Approximate # of participating teachers
Year 1	8 - 10	30 - 40
Year 2	16 - 20	90 - 120
Year 3	24 - 30	200 - 240
Total after 3 years	48 - 60	314 - 380

Key components that are essential to the success of an ST adoption and integration plan include:

- Level 1: Developing Critical Thinking Skills** (Participation must be voluntary for participants.)
This workshop will provide an introduction to ST and its connections to other effective instructional practices and school improvement efforts. During the workshop, participants will develop skills and knowledge in the use of ST concepts and tools; experience, practice, and discuss interactive, inquiry-based instructional and school improvement strategies; use ST tools to analyze complex issues and identify high leverage interventions; and develop and share a plan of application relevant to their work. Prerequisite: A desire by the teacher to learn and apply ST. Length: 4 days/30 hours
- Level 2: Harnessing the Power of Visual Tools and Computer Models/Simulations** (Participation must be voluntary for participants.)
This workshop will build on the skills developed in Level 1. Participants will build interconnected loops, create stock/flow maps, and utilize the iceberg model as a framework for systems analysis. Participants will also have an introduction to dynamic computer models and simulations. Prerequisite: Level 1 training. Length: 2 to 4 days/15 to 30 hours
- Coaching:** Follow-up coaching support is essential to effective ST adoption and integration. Coaching may include classroom observation and debrief meetings,

demonstration lessons taught by the coach, collaborative meetings with cohort teachers, planning sessions with principal and/or cohort teachers. During each coaching visit, a regular check-in meeting with each building principal is highly recommended.

- **Learning Collaboratives:** Structures for both formal and informal teacher collaboration should be in place or developed. Learning Collaboratives are scheduled, informal gatherings of educators interested in applying ST to their work. Meetings focus on refining and reviewing applications of ST concepts and tools as an ongoing follow-up to Level 1 and 2. Participants are encouraged to bring student work, learning artifacts, lesson plans, new activities, questions and resources to share.
- **Waters Foundation Training of Trainers (WFTOT):** In order to ensure the school system's internal capacity to provide ongoing ST workshops, coaching and facilitation of learning collaboratives, a select group of teachers in the school system who demonstrate successful application of ST habits and tools will be trained and eventually certified by the WF. This skilled group of teachers will be able to serve and support ongoing, districtwide ST adoption and integration.

The 3-Year Plan

Before Year 1

District and School Preparation Phase

Introduction

1. 1 to 2 hour presentation to upper leadership (Superintendent, Assistant Superintendents, Governing Board, high-level business individuals, Foundation members) to gain initial support and entry into the school district. The presentation would include basic information about ST in schools including the benefits to students, teachers and administrators and the habits, concepts and tools of ST as illustrated in student and adult work samples and video clips.
2. 1 to 2 hour workshop for interested principals and teacher leaders to entice participation in making a 3-year commitment to building and sustaining ST capacities in their schools and district.
3. Share Indicators of Readiness paper (link from website) in preparation for recruitment phase.
4. Develop specifics of 3-year plan and draw up a contract between school district and WF.

Before Year 1

Cohort 1 Recruitment Phase

1. Identify school principals who attended the introduction workshop who are interested and willing to make a commitment to participate (approx. 8 to 10 schools). Participating schools should have at least 3 to 5 teachers interested in participating voluntarily.
2. Identify interested and committed teachers in each of the 8 to 10 schools to form learning Cohort #1. Target size would be 3 to 5 teachers from each of the 8 to 10 schools (approx. 30 to 40 participants). Recruited teachers should be well-respected colleagues, proficient to excellent teachers, and eager to increase their capacity to deliver academic and lifetime benefits to students. Teachers from within this first cohort will be identified and trained as future ST coaches and trainers in years 2 and 3.



Year 1 for Cohort 1

Each Cohort 1 school and its volunteer Cohort 1 teachers will commit to the following in Year 1:

1. Teacher and principal participation in Level 1 workshop (4-day workshop usually scheduled the summer before Year 1)
2. Participation in an after-school Learning Collaborative that will model the expected structure for ongoing learning and implementation. Learning Collaboratives provide time for teachers from participating schools to deepen their learning, share lessons and student work and build a network of collaboration. WF staff will facilitate the first Learning Collaborative and then volunteer Cohort 1 teachers will facilitate others scheduled throughout Year 1.
3. At least 1 to 2 coaching visits each semester (2 visits minimum) to each of the Cohort 1 schools so that Cohort 1 members will each receive scheduled coaching time. Coaching may include: classroom observation and debrief meeting, demonstration lessons taught by the coach, collaborative meetings with cohort teachers, planning session with principal and/or cohort teachers.
4. Develop opportunities for teachers to share their experiences with those in and outside of the cohort. Examples include staff meeting sharing, brief principal meeting presentations, board meeting presentations, an annual gathering in the summer to invite others to learn about the benefits of ST instructional strategies.

Year 2 for Cohort 1

1. Cohort 1 teachers and their principals will participate in a 2 to 4 day Level 2 workshop (Harnessing the Power of Visual Tools and Computer Models/Simulations) scheduled during the summer at the end of Year 1.
2. Cohort 1 teachers will facilitate Learning Collaborative sessions for Cohort 1 and 2 teachers. Learning Collaborative sessions will be scheduled after school and at least every other month throughout the year. During these sessions, Cohort 1 and 2 teachers will be invited to share lesson ideas, student work and assist one another in successful ST implementation. Learning Collaboratives are designed to develop a district network that supports deeper learning and peer-to-peer coaching.
3. All Cohort 1 teachers will receive time with a WF coach 2 to 4 times (at least once per semester).
4. Develop opportunities for teachers to share their experiences with those in and outside of the cohort. Examples include staff meeting sharing, brief principal meeting presentations, school board meeting presentations, an annual gathering in the summer to invite others to learn about the benefits of ST instructional strategies.
5. During 2nd semester of Year 2, emerging ST teacher-leaders from Cohort 1 will be identified as potential future ST trainers and be invited to participate in the Waters Foundation Training of Trainer (WFTOT) program.
6. The recruited WFTOT group will participate in a 2-day TOT workshop scheduled February – April.



Year 2 for Cohort 2

Five additional teachers from each of the Cohort 1 schools will make up Cohort 2. In addition, 8 to 10 new schools' principals and teacher participants (3 to 5 teachers each) will comprise Cohort 2 (approximately 100 teachers total).

1. All Cohort 2 teachers and principals of new schools will participate in a 4-day Level 1 training during the summer at the end of Year 1.
2. All Cohort 2 teachers will receive time with a WF coach 2 to 4 times (at least once per semester) during Year 2.
3. All Cohort 2 teachers will be encouraged to participate in Learning Collaboratives scheduled throughout Year 2 (facilitated by Cohort 1 teachers).
4. Develop opportunities for teachers to share their experiences with those in and outside of the cohort. Examples include staff meeting sharing, brief principal meeting presentations, board meeting presentations, an annual gathering in the summer to invite others to learn about the benefits of ST instructional strategies.
5. Teacher coaches will be identified from Cohort 2 who will be trained by WFTOT and asked to help facilitate Learning Collaboratives and coach in year 3.

Year 3 for Cohort 1

1. WFTOT candidates from Cohort 1 will serve as assistant facilitators for both Level 1 and 2.
 2. The TOT assistant trainers will participate in debriefing sessions with WF staff at the end of each Level 1 and 2 workshop day.
2. WFTOT assistant trainers will help WF staff provide coaching to Cohort 2 and 3 teachers throughout the year.
3. Cohort 1 teachers will continue to schedule and facilitate Learning Collaboratives.
4. All Cohort 1 teachers will be encouraged to participate in Learning Collaboratives scheduled throughout Year 3 (facilitated by Cohort 1 and 2 teachers).

Year 3 for Cohort 2

1. Cohort 2 teachers will participate in a 2 to 4 day Level 2 workshop (Harnessing the Power of Visual Tools and Computer Models/Simulations) scheduled during the summer at the end of Year 2.
2. Cohort 2 teachers will be provided time with a WF coach or Cohort 1 or 2 coach 2 to 4 times (at least once per semester) during Year 3.
3. Cohort 2 teachers will be encouraged to help facilitate Learning Collaboratives.
4. All Cohort 2 teachers will be encouraged to participate in Learning Collaboratives scheduled throughout Year 3 (facilitated by Cohort 1 and 2 teachers).

Year 3 for Cohort 3

Five additional teachers from each of the Cohort 1 and 2 schools will make up Cohort 3. In addition, 8 to 10 new schools' principals and teacher participants (3 to 5 teachers each) will comprise Cohort 3 (approximately 180 teachers total).

1. Cohort 3 teachers will participate in a 4-day Level 1 workshop
2. Cohort 3 teachers will be provided time with a WF coach or a Cohort 1 or 2 coach 2 to 4 times (at least once per semester) during year 3.



3. All Cohort 3 teachers will be encouraged to participate in Learning Collaboratives scheduled throughout year 3 (facilitated by Cohort 1 and 2 teachers).

Ongoing Support

1. WF staff can be contracted for additional services and continued support of district ST trainers and coaches as needed.
2. WFTOT assistant trainers will be eligible to become fully certified WF trainers and qualified to facilitate both Level 1 and 2 WF workshops and onsite coaching throughout the district. Once certified they will have access to all WF training materials.
3. Assistance in planning and hosting a regional Waters Institute [provide link] will be available after Years 1, 2 or 3.

