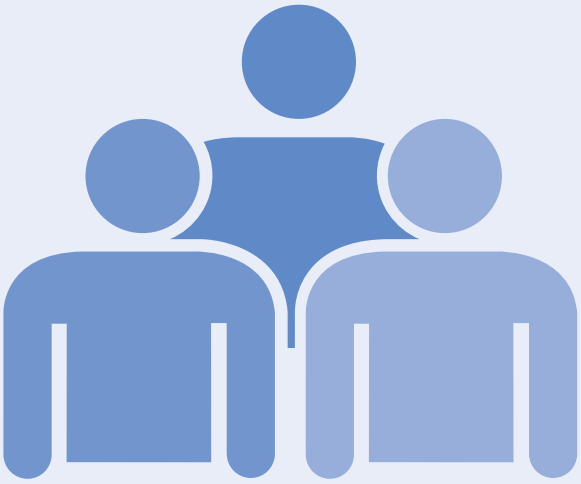
THE CUNY HSE CURRICULUM FRAMEWORK

SECTION 6

Professional Development Recommendations



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The CUNY HSE Curriculum Framework

2015

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http://literacy.cuny.edu

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Suggested Professional Development Activities

For Social Studies: Integrating Reading & Writing

As teachers, we are always on the lookout for ideas and materials to help our students learn more productively. Most of us agree that it's handy to have someone else who isn't preoccupied with the daily demands of classroom teaching to have already thought about which areas in a crowded curriculum to focus on, the key questions to ask, the texts to read, the essay topics to assign, and the best resources—online and in print—to rely on. For teachers, this helps to minimize the burden of daily preparation and allows more time to focus on students, and how well they are learning. But picking up a curriculum framework, or a guide or a set of lessons that someone else has written and using them to guide instruction, also takes work. What follows are suggestions on how to dig into these curricular materials and adapt them for use with your own students. The plan for professional development described below can be taken on by an individual teacher, or because we as teachers have a great deal to learn from each other, the discussions can easily happen in small groups.

Curriculum Review Circles

When trying out new materials, lessons and approaches, it's most helpful for teachers to meet or communicate in pairs or small groups, working together to digest and make sense of what they are reviewing. That is the point of Curriculum Review Circles.

RECOMMENDED ACTIVITIES:

ACTIVITY 1 Review of the Teaching and Learning Principles

Teachers read these sections in the framework document:

- Introduction
- Introduction to the Social Studies Lessons

The Introduction to the Social Studies lessons lists the following teaching and learning principles:

- Implement a Content-Based Approach
- Integrate Reading and Writing with Learning Content
- Stimulate Active Learning
- Provide Scaffolded Instruction
- Plan for Collaborative Learning
- Encourage Metacognition and Self-Regulated Learning

For each of these principles, an example is provided in the Introduction to the Social Studies Lesson Plans. With a partner, review the lesson plans and find one additional example of each teaching/learning principle. Discuss ways in which the examples are similar/different.

ACTIVITY 2 Review of Reading Instruction

Read "Effective Practices for Developing Reading Comprehension" by Duke and Pearson, available on the web, and discuss the following:

- The article lists the strategies good readers use. Look through the Social Studies lessons. What reading strategies are taught? How do they reflect the research included in the article regarding the strategies that successful readers use?
- How are the reading strategies used with different text types different from each other? What's an example?

ACTIVITY 3 Summarizing and Paraphrasing

Watch the video entitled "Summarizing and Paraphrasing" on the TeachingtotheCoreNY.org website.

Before viewing, briefly discuss:

- Have you taught paraphrasing and summarizing? How have you done it? If you have, how did you set the lesson up and what was your experience?

After viewing, discuss:

- Why is it important to teach summarizing and paraphrasing? How will it help students meet their goals?
- What was the process outlined for teaching summarizing and paraphrasing?
- Where, and how, do you see this process reflected in the Social Studies lessons?

ACTIVITY 4 Anatomy of a Reading Lesson

Watch the video "Anatomy of a Reading Lesson" on TeachingtotheCoreNY.org.

Before viewing, discuss:

- How you structure your lessons and why.
- What are some pre-reading, during-reading and post-reading activities you have used successfully? Why do you think they were successful?

After viewing, discuss:

- What you have learned about designing a reading lesson.
- How you see the ideas outlined in the video put into practice in the Social Studies lesson plans.
- Give an example.

ACTIVITY 5 Persuasive Writing

Watch the video "Persuasive Writing" on the TeachingtotheCoreNY.org website.

Before viewing, discuss:

- How have you taught persuasive writing? What have you found to be successful in helping students master this form of writing? What have you noticed that students have most trouble with, and how do you address this?

After viewing, discuss:

- What key points were made in the video about teaching persuasive writing? How do you see these reflected in the Social Studies lessons?

Review the writing activity in Lesson Five. How were students guided to identify claims, support and reasons? What templates were given to help students organize their writing?

Piloting the Lessons

The Social Studies HSE Framework is easiest to use if teachers have the opportunity to communicate their experiences with other teachers while trying out the lessons. Teachers at a program can meet, email each other, or a larger group can communicate via an online forum like Wiggio.com.

A recommended procedure for teachers to follow:

- Choose a lesson or pair of lessons together that you plan to teach. Thoroughly review and discuss the lesson plan and materials, noting questions you have or problems you foresee and making necessary adjustments.
- Teach the lesson(s).
- Summarize how the lesson went.
  - What worked well? How did you know it was successful? Why do you think it was successful?
  - What did not work? How did you know it wasn't working?
  - Explain the activity, what went against your expectations, and why you think it happened.
  - If and when you teach the lesson again, what adjustments will you make?

Lesson Development Using the Social Studies Curriculum Map

Once teachers have become familiar with the HSE curriculum framework, they will be able to use the tools provided to develop their own lessons on U.S. history that will help students build literacy skills and prepare for the HSE test. Here is an outline of recommended steps:

STEP 1 IDENTIFY THE KEY CONCEPTS

With another teacher or teachers, choose one period of U.S. history to focus on.

Review the Social Studies Curriculum Map for that period. What are the key historical, geographical, civics and economics concepts listed?

What do you have questions/want to know more about? Do research to find answers to your questions, then come back together to discuss what you have found. What seems most important? What information do students need to know first? How does each concept/time period build on the next? How will you tell students the "story" of this particular period in U.S. history?

STEP 2 STUDENT BACKGROUND KNOWLEDGE

Which concepts will students most likely have background knowledge about? Where will they need to build background knowledge? How might you do that in a way that connects to experiences students may have had, or concepts they may be familiar with? Are there present day situations that are similar?

STEP 3 CHOOSING TEXTS

What information do you want students to have about this concept/period? What are the texts suggested in the Framework? Are they appropriate for your students? Will you need additional/alternative texts?

STEP 4 IDENTIFYING STRATEGIES

What will be challenging for students about this text? Which strategies will be most useful for promoting comprehension of the classroom texts you have chosen? For instance, if you have chosen a piece of informational text, what strategy or strategies will be most helpful with this text type? If you have chosen a graph, what strategies will you want to model and have students practice?

How will strategies be modeled? How will you break the text up into manageable sections? How will students practice them using a gradual-release-of-responsibility model? How will you help students be aware of the thinking strategies they have used, and remember them for the future?

STEP 5 IDENTIFYING VOCABULARY

What new words are key to understanding the historical period, the concepts, or the texts you will be using? How will you handle the word-learning aspect of the lesson? Will you pre-teach words? Which words? Will you footnote the meanings of some words? How will you provide for review, either through homework or work in the next lesson?

STEP 6 DESIGNING A PROMPT AND PRE-WRITING ACTIVITY

What provocative historical or contemporary issues relate to the material being taught in the lessons? How relevant will these seem to students? Where will you find short pro/con texts that can be used as springboards for writing? How will you guide students in brainstorming ideas, organizing their ideas in a graphic organizer, identifying claim, support and reasons in a model essay?

STEP 7 REVIEW ACTIVITIES AND NEXT STEPS

How can you design sentence-combining exercises for students, drawing stem sentences from text used in class, and providing a mini-lesson on using a grammatical form such as commas in a series, FANBOYS or dependent clauses to combine sentences? How will students review vocabulary and key concepts from the previous lesson? How will you transition to the next topic?

For Science: Matter & Energy

Many adult literacy teachers have been worried by the idea of teaching science. Because so many of us are generalists, we may not have had much opportunity to study the physical sciences ourselves, and may not be very comfortable with the high-emphasis areas of life science, earth science and space science. In order for teachers to gain confidence in teaching science, curriculum written for adult classrooms is really helpful. It is also important for us to study the content ourselves and think about the questions that occur to us as we study. For many of us, we will need to learn the content while also considering the best way to present it to our students. Talking and planning with other teachers as we prepare to teach science can help us face this challenge.

RECOMMENDED ACTIVITIES:

ACTIVITY 1 Introduction to Teaching Matter

Read the first two sections, *1-1 Introduction* and *1-2 Matter is made of atoms,* from the lecture "Atoms in Motion" by Richard Feynman, available at http://www.feynmanlectures.caltech.edu.

Before reading:

- **Pair/Share:** What was your experience learning science in school?
- **Group discussion**: If you were teaching a class focused on one of the physical sciences, what would be most important to communicate to your students about what science is and how we study it?

During reading:

- **Highlight a couple sections that stood out to you:** one section that helped you understand something new and one section that was confusing. Write notes in the margin explaining why you highlighted each of these sections.
- **Write** at least one question about what you read in the margin.

After reading:

- **Ask small groups of 2-3 teachers to discuss the article**, starting by discussing the sections that helped people understand something new. Did you highlight similar sections of the text? What was new

to you about this explanation? Discuss sections of the text that were confusing. What was confusing about it? What questions do you have?

- **Tell the group that you would like to start by collecting questions.** Ask the small groups to report back on the questions that came up, writing each in a list on the board. Discourage others from trying to answer the questions as they are posed, focusing instead on collecting and generating new questions. After collecting and appreciating questions from the group, discuss how we might seek answers to some of these questions. Which of these questions would you bring to your students?
- **Ask the small groups to consider the following quotes from the text.** You might give different quotes to each group and report back as a jigsaw.

"Each piece, or part, of the whole of nature is always merely an approximation to the complete truth, or the complete truth so far as we know it. In fact, everything we know is only some kind of approximation, because we know that we do not know all the laws as yet. Therefore, things must be learned only to be unlearned again or, more likely, to be corrected."

- What example does Feynman use to illustrate that our knowledge is "an approximation to the complete truth" of the physical world?
- Can you think of other examples of things that must be learned only to be unlearned again?

"The principle of science, the definition, almost, is the following: The test of all knowledge is experiment. Experiment is the sole judge of scientific 'truth.'"

- Can you think of a concrete example of a piece of knowledge we have about the physical world that is the direct result of experiment?
- Why is Feynman saying that experiment is so important?
- What implications does this statement have for the way we teach science?

> **"If, in some cataclysm, all of scientific knowledge were to be destroyed, and only one sentence passed on to the next generations of creatures, what statement would contain the most information in the fewest words? I believe it is the atomic hypothesis (or the atomic fact, or whatever you wish to call it) that *all things are made of atoms—little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another.*"**

- What is so important about this statement?
- What can we learn about the world based on this statement?
- What is important for our students to understand about the atomic hypothesis?

ACTIVITY 2 States of Matter

Watch the video of Richard Feynman entitled "Fun to Imagine: Jiggling Atoms" on YouTube.

Before viewing the Feynman video:

- **Pair/Share:** What science demonstrations do you remember from school? What demonstrations have you tried with your classes?
- **Group work:** Distribute a photograph of a glass of ice water in the summer. Ask the group to consider this question: *Why does water bead up on the outside of a cold glass?* People should first think about the question on their own and write a short paragraph explaining their ideas. Small groups of 2-3 teachers should share their explanations with each other.

After viewing, discuss:

- What does the movement of atoms have to do with the different states of matter?
- What was most memorable about Feynman's explanation of the movement of atoms?
- What do you think about Feynman's statement at the end that we should have fun thinking about this subject?

For Mathematics: Problem-Solving in Functions and Algebra

We want every math teacher to be more confident than they were two years ago and not as confident as they are going to be five years from now. Teachers need time, respect and support for that to happen. Change happens slowly. So does learning. Our motto for professional growth has been "Make a small change, and then do it again." Our motto for professional development is to give teachers a safe place to reflect on that process.

For the first three activities, try to sit with at least one other teacher. If that is not possible because of logistics, geography or scheduling, try to use an on-line platform like Google Docs to share your ideas.

ACTIVITY 1 Student-Centered Classroom

Watch the video entitled "Student-Centered Classroom" on the TeachingtotheCoreNY.org website.

Before viewing, briefly discuss:

- What does "a student-centered classroom" mean to you?
- What are your students responsible for in terms of learning in your classroom?

After viewing, discuss:

- What are some qualities of a student-centered classroom that are explored in the video?
- Discuss any strategies mentioned in the video that are currently part of your own teaching.
- What is one new strategy discussed in the video that you want to try in your own instruction? What interests you about that idea?
- What do you think about the final quote about what it means to be
  a good teacher at the end of the video?
- How do you see the ideas outlined in the video put into practice in the math lesson plans?

ACTIVITY 2 Revealing Student Thinking

Watch the video entitled "Revealing Student Thinking" on the TeachingtotheCoreNY.org website.

Before viewing, briefly discuss:

- How do you know what your students are thinking?
- How do you celebrate student thinking in your class?

After viewing, discuss:

- What is one idea from the video that surprised you? Did you agree/disagree? Discuss.
- What are three strategies for focusing on student thinking that you are interested to try out in your classroom?
- How do you see the ideas outlined in the video put into practice in the math lesson plans?

ACTIVITY 3 Perseverance in the Math Classroom

Watch the video entitled "Perseverance in the Math Classroom" on the TeachingtotheCoreNY.org website.

Before viewing, briefly discuss:

- Why is perseverance in problem-solving an important part of adult education in math?
- Can perseverance in mathematical problem-solving be taught?
- What are three values that are important to you as a person? How do those values inform your work as an educator?

After viewing, discuss:

- Why is perseverance in problem-solving an important part of adult education in math? Any new ideas?
- What are classroom routines you use in your class to help students develop perseverance?
- What classroom routines did you hear about in the video that can help students develop perseverance?

- Would you try the values writing activity with your math students? Why or why not?
- How do you see the ideas outlined in the video put into practice in the math lesson plans?

ACTIVITY 4 Making the Lessons/Teacher Supports Your Own

We do not believe in teacher-proof curricula. We believe teachers need support in adapting lessons to best meet the needs of their students and fit their own teaching style and strengths. Teachers are most likely to feel success with the lessons and teacher supports if they view it as a learning process and if they have the opportunity to communicate their experiences with other teachers. Adult education teachers across the state work in an incredibly diverse range of programs and work environments. Ideally, teachers can meet, but even if they can't, managers should work to facilitate opportunities for teacher collaboration—through email or through a free online forum like Wiggio.com or Google Docs.

A recommended procedure for teachers to follow:

- **Choose a lesson or pair of lessons together that you plan to teach.** Thoroughly review and discuss the lesson plan and materials, and do all of the problems for yourself. Note questions you have or problems you foresee and consider possible adjustments.
- **Teach the lesson(s).**
- **Write a one-page reflection on how the lesson went:**
  - What worked well? How did you know it was successful? Why do you think it was successful?
  - What did not work? How did you know it wasn't working?
  - If and when you teach the lesson again, what adjustments will you make?

ACTIVITY 5 The Curriculum Map and Framework

The heart of the math section is the nine units focused on content development. Included in those units are five model lessons. Units that do not have a lesson are built around a core problem and have what we are calling "teacher supports". The teacher supports have helpful information like rationale, goals, extension and support questions, key vocabulary, an overview of the core problem, etc.

We offer the curriculum map as a framework and invite you to add even more depth and innovation. Use the lessons in Units 1, 3, 8 and 9 as models and build the teacher supports in Units 2, 4, 5, 6 and 7 into lessons. You are explorers, taking second-hand accounts and adding the details to make them better. We are all dedicated and creative educators and we are all in this together.

Here are some suggestions for group professional development projects using the math framework:

- **Teachers can use the content focus of the framework as a guide to deepen their own content knowledge.** It can sometimes feel like we have to know everything, which is just not possible. The bar has been lifted and we need to learn more math, but we have to be as patient with ourselves as we are with our students. Learning takes time and it takes collaboration. Get together with a group of teachers and decide on a unit to explore. Read the appropriate sections from recommended resources for building teacher content knowledge (found in the math resources section). Work on the problems together and discuss the discussion questions in the texts.
- **Choose a unit to explore with another teacher and try the problems out with your students.** Collect samples of student work. Get together with your colleague and compare notes. How did the activity go? What did students struggle with? What mistakes/ reasoning did you find interesting in the student work? Are there any samples of student work that you'd like an outside perspective to wrap your head around? What surprises came up? What parts of the teacher support were the most helpful? What would you add to the teacher support?
- **Use the core and supplemental problems as models and adapt them.** You might change the situations to make them more relevant to your students or add their names to make them smile. Create them together and try them out with your students. Can you add

teacher supports for your problem? How does it connect to the other problems in the unit?

- **Explore the recommended math resources and see if there are other problems that could work for supplemental or even core problems for a particular math unit.** You might couple this with the first suggestion of teachers deepening their own mathematical understandings of a particular concept from the framework. Once you find some problems, try them with your students and report back to each other on what happens. Then work together to create a teacher support that could help other teachers add your problem to their work on the unit.

ACTIVITY 6 Teacher Reflection

In the Math section of this framework, there is a section called Teacher Reflection. The introduction to that section—titled *"Reflective Teaching: A Focus on Student Thinking in Problem-Solving"*—describes a rich activity that a teacher can do on their own and/or together with other teachers. In that section, you will find a series of questions focused on three important moments in teaching—planning, responding to student work, reflecting and improving practice.

Here are some suggested ways to use those questions:

- **You can use the teacher reflection form and answer the questions on your own.** If this is the case, please consider sharing your final product with a colleague.
- **You can work on the teacher reflection form with a group of teachers.** You can break it up into sections—the first time you meet together, work on the planning questions. Then everyone tries it out with their students and collects student thinking. Then teachers meet again, to share and analyze the student work, guided by the provided questions on student work. Then use the reflection questions to discuss and process what you've learned from the experience.
- **Read one of the sample Teacher Reflections, discuss it with a colleague and then try the problem with your own students.** Answer the questions on student work and the reflection questions.

For Professional Development Across the Content Areas

There are a set of companion videos created alongside this document that demonstrate some of the lessons, activities, routines described here. Watch 2-3 of them (available at literacy.cuny.edu/hseframework), looking at one from at least two different content areas—there are videos for ELA/Social Studies, Math and Science—and consider what similarities you notice in the instruction.

- What kinds of questions do you hear the teachers asking?
- How do each of the teachers try to start with the concrete and build it into a larger and more abstract concept?
- How do each of the teachers draw out their students' thinking?

> “Wonderful ideas are built on other wonderful ideas. …You must reach out to the world with your own intellectual tools and grasp it, assimilate it, yourself. All kinds of things are hidden from us—even though they surround us—unless we know how to reach out for them.”
>
> —Eleanor Duckworth

Online Resources for Professional Development

The following links may be useful as you plan professional development for teachers in your area.

CUNY's Adult Literacy/HSE Program
http://literacy.cuny.edu
The central web site for CUNY's Adult Literacy/HSE Program. At this site, you can find CUNY campus adult literacy, HSE and ESOL program locations. You will also find an extensive list of resources for teachers, including PDFs of the CUNY HSE Curriculum Framework and supplementary materials developed as the framework is put into practice. The site also includes information about our professional development offerings (workshops, coaching and curriculum).

Teaching to the Core NY
http://teachingtothecoreny.org
This site is a project of the New York State Education Department from the Office of Adult Education Programs and Performance. This is the official website for current materials and resources related to the work of New York's adult educators in providing high quality instruction as they prepare adult students and out of school youth for the NYS High School Equivalency exam and beyond. The training videos from the NYS Teacher Leaders Institutes can be found here.

CollectEdNY
http://collectedny.org
CollectEdNY is a project of the New York State Education Department in collaboration with CUNY's Adult Literacy/HSE Program and the NYC Literacy Assistance Center. The site looks for quality, free teaching resources for adult literacy and writes reviews for how they can be used in our classrooms. Then we ask adult literacy teachers to rate the resource and write about their experience with it, good and bad. Together, we share knowledge about what works and what good resources are available. Visit the site to sign up to receive emails announcing new reviews of teaching resources.