

The Iowa Core Curriculum: Enhanced Learning for All Students

Overview



Iowa Department of Education
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The Iowa Core Curriculum: Enhanced Learning for All Students

Overview

Each and every K-12 student will learn the essential concepts and skill sets identified in the Iowa Core Curriculum for life in the 21st century.

- *Each K-12 educator will embed the essential concepts and skill sets in rigorous and relevant instruction informed by ongoing formative assessment.*
- *Each and every educational leader will ensure an aligned system of curriculum, instruction, and assessment, focused on the ICC essential concepts and skill sets.*
- *The Iowa Department of Education, AEAs, LEAs, and collaborative partners will work together to provide the systems of supports to establish and sustain structures for the essential concepts and skill sets, instruction, and assessment.*

■ What vision does the Iowa Core Curriculum advance?

The vision for the Iowa Core Curriculum (ICC) is to ensure the success of each and every student by providing a world-class curriculum. The ICC is designed to improve achievement of all students, preparing them for the world of work and lifelong learning. It identifies the essential content and instruction that all students must experience.

The technical assistance efforts supported by the ICC Department of Education Team, the Advisory Team and the ICC Area Education Agency (AEA) Network are designed to support local districts and assist Iowa practitioners in reaching the student learning goals established for each student.

School districts that implement the ICC with integrity increase the likelihood that all students become life-long learners, productive adults, and engaged citizens. The Department improvement efforts are designed to yield positive results by enabling schools to prepare students to graduate with the 21st century skills and competencies needed to be successful in post-high school endeavors and the world of work.

■ What policies created the Iowa Core Curriculum?

Senate File 245 (May 2005) and Senate File 588 (May 2007) established the voluntary Model Core Curriculum in K-12 literacy, mathematics, science, social studies, and 21st century skills. Governor Chet Culver proposed that the ICC be fully implemented by all Iowa schools – public and accredited nonpublic. The Governor signed Senate File 2216 into law May 1, 2008, which requires the full implementation of the ICC – in high schools by 2012 and K-8 by 2014.

■ What is the Iowa Core Curriculum?

The ICC provides the details for teachers to make sure students reach Iowa's Core Content Standards and Benchmarks. It assists teachers in knowing how to integrate essential concepts and skills into student learning opportunities. The ICC is about teaching and learning; it provides examples of powerful instruction clearly tied to classroom assessments. It provides a comprehensive picture of effective curriculum that addresses pedagogy, content knowledge, and assessment.

The purpose of the ICC is to raise student expectations and change teaching behaviors to impact student achievement. The ICC provides the processes and establishes the urgency to set higher expectations and infuse more challenging and meaningful content into classroom instruction.

Standards in Iowa Education

The Iowa Core Curriculum integrates the Iowa Core Content Standards and Benchmarks, the National Assessment of Educational Progress frameworks, and national curriculum documents in literacy, mathematics, science, social studies, and 21st century skills.

In Iowa, we have many standards:

- **Accreditation Standards** – These standards describe minimum requirements that must be met for an Iowa school district to be accredited. A nonpublic school must meet general accreditation standards if it wishes to be designated as accredited for operation in Iowa.
- **Program Standards** – These standards describe the instruction that all public and accredited nonpublic schools must offer students prekindergarten through grade twelve.
- **Teaching and Leadership Standards** – These standards describe the performance Iowa expects of its educators.
- **Core Content Standards** – Broad statements that identify the knowledge and skills that students should acquire in reading, mathematics, science, and social studies.
- **Performance standards** – Levels of performance are described as high – distinguished and accomplished, intermediate – skilled and moderate, low – marginal and weak.

The Core Content Standards are supported by a system that is comprised of several components: assessments, teacher professional development, curriculum, grade level expectations, and benchmarks.

A benchmark is a learning target for a grade level span. Grade level indicators provide further detail and show what learning targets look like for each grade K-8.

There is an evidence base supporting the implementation of the ICC. A significant body of work by multiple theorists and researchers asserts that the content of instruction plays a primary role in determining gains in student achievement (Garmoran, Porter, Smithson, & White, 1997; McKnight et al, 1987; Rowan, 1998; Schmidt, 1983a, 1983b; Sebring, 1987; Walberg & Shanahan, 1983). The ICC helps to focus the curriculum on higher order skills and increase the cognitive demands placed on students. Challenging instruction yields positive student outcomes.

The Second International Mathematics Study (SIMS) and the Third International Mathematics and Science Study (TIMSS), and other international studies suggest that providing students with opportunities to learn using a focused curriculum that emphasizes depth of knowledge and skills and encourages thinking and cognitively complex applications leads to improved student performance (Niebling, Roach, Rahn-Blakeslee, 2008).

■ What does the Iowa Core Curriculum look like?

The ICC is not just a document distributed to school districts. Ongoing and sustained professional development and leadership will be required to guide and enhance curriculum content, classroom instruction, and classroom assessment. School district personnel will analyze both the content and instruction of their current curriculum, find the gaps, and as needed, restructure their current instructional program to incorporate the ICC. The ICC is not course-based, but rather is a student-based approach that supports high expectations for all students.

The Department is committed to providing leadership, policy, professional development, and technical assistance to assist Iowa's schools in enhancing learning for all students in each content area. The Department advocates and supports the implementation of a consistent approach to instructional improvement that integrates multiple components, that when implemented in concert, accomplishes the goal of increasing student achievement. The fundamental components of this approach include the following:

- I. The Iowa Core Curriculum
- II. Systems Supports
- III. Leadership

I. Iowa Core Curriculum

Iowa has a system of Iowa Core Standards, Benchmarks, and grade level indicators that contributes to our tradition of high student performance. The ICC provides direction about essential content, authentic instruction, and authentic assessment for the core content areas of literacy, mathematics, science and

social studies. The ICC provides all schools with the three essential characteristics of a quality instructional program: 1) a guaranteed and viable curriculum, 2) data-driven processes, and 3) practices and methodologies that are evidence-based.

The Department supports a range of instructional initiatives providing school districts and AEAs with replicable approaches to implement authentic instruction and assessment in each core content area. Literacy, mathematics, and science initiatives are currently being implemented across the state. The Department has plans to include initiatives supportive of social studies and 21st century skills.

II. Systems Supports for the Iowa Core Curriculum

Successful implementation of the ICC requires significant systems-level supports: Learning Supports, the Instructional Decision Making Model, and the Iowa Professional Development Model. To accomplish improved student learning through curriculum reform, school leaders at the state, regional and local level must maintain an unrelenting focus on improving not just the practices used by teachers to deliver instruction to all students, but also the organizational structures and supports.

III. Leadership

To effectively incorporate the Iowa Core Curriculum into practice, Iowa school leaders must support the implementation and sustainability of quality instruction. Leadership needs to be focused on learning, and leaders need to ask hard questions about teaching practices and student learning and consistently know and model the knowledge and skills needed to do the work (Elmore, January 2002; May, 2002; November, 2003). As schools engage in the curriculum and instruction framed by the Iowa Core Curriculum, distributed leadership is needed alongside quality professional development to ensure success. Leaders must make sustainability of effective instruction a priority by committing to and protecting the conceptual learning of students, distributing leadership and responsibility to others, and actively engaging in classroom environments (Hargreaves & Fink, April 2004).

■ What are the benefits to students?

The ICC:

- Ensures that students will grasp big ideas through a focus on essential topics.
- Moves students beyond superficial knowledge to deep conceptual and procedural knowledge through learning for understanding, problem solving, and inquiry.

- Provides students opportunities to learn rigorous, robust content through the effective pedagogy of the ICC. Students will leave school equipped to succeed regardless of their postsecondary plans.
- Enhances student engagement by involving students in interesting, relevant learning experiences that are motivating and lead to positive outcomes and less negative behavior.

For most students, the usual work demanded in school is rarely considered meaningful, or worthwhile. Learning tasks call for specific memorized information, retrieval of given information or application of routine computational procedures, but rarely do they call for higher-level thinking, interpretation, or in-depth conceptual understanding.

Newmann, King, and Carmichael, 2007

- Facilitates reduction in fragmentation and redundancy that sometimes occurs in school curricula thus creating more effective use of instructional time.
- Promotes the use of formative assessments that are based on authentic content taught in a meaningful way and engages students more directly in monitoring their progress and growth, thus providing a motivator to improve.
- Promotes student learning through the development of conceptual understanding and application of knowledge. Examples:

Math:	Shifts from memorizing and practicing facts and procedures to understanding and applying concepts, practices, and facts.
Literacy:	Shifts from a primary focus on reading and writing in English/Language Arts classes to the integration and practical application of all five literacy skills – reading, writing, speaking, viewing, and listening – across all content domains.
Science:	Shifts from lecture, an over-emphasis on textbook readings, and “cookbook” labs to learning through actively investigating, designing experiments, questioning, exploring, and defending conclusions.
Social Studies:	Shifts from lecture and recitation of discrete pieces of information to the acquisition of knowledge and skills associated with the economic, political, civic, and social forces that are relevant to the world in which students live.
21 st Century Skills	Shifts from a traditional system that may not include the incorporation of these skills into curriculum for all, to one that requires that all students leave school prepared to succeed in the complex new, 21 st century. Essential concepts and

skill sets include employability skills, financial literacy, health literacy, and technology literacy.

■ What are the benefits to educators?

- Teachers who deliver instruction focused on the ICC will have confidence that their content and pedagogy are research-based or evidence-based.
- When the content is focused, quality professional development can provide important professional growth for teachers to improve their instructional practices. Teachers engaged in quality professional learning are more likely to be productive and positive learners and improve the learning culture of the school (Iowa Teaching Standards #2 and #7).
- As school staffs analyze local curriculum and instruction to identify opportunities for improvement, they are likely to discover that they spend too much instructional time teaching content that is not essential and not enough time focusing on the critical content. This process will help schools determine what to do more of and what to eliminate or decrease.
- As school staffs focus on improving instruction, they may discover instructional practices that are commonly used but ineffective and decide to replace those practices with more effective, research supported ones.
- Teachers who are focused on the ICC are less distracted by fads and superficial projects that are unlikely to yield results.
- When teachers design formative assessment practices based on authentic content, data will be useful for shaping future instruction.
- The ICC provides school administrators further opportunities to support balanced leadership by giving them tools to actively help teachers with issues regarding curriculum, instruction, and assessment (Standard 2, Iowa School Leaders Standards and Balanced Leadership Responsibilities).

Through the process of improving lessons and sharing with colleagues the knowledge they acquire, something remarkable happens to teachers: they begin viewing themselves as true professionals. They see themselves contributing to the knowledge base that defines the profession. And they see this as an integral part of what it means to be a teacher.

Stigler, J. W., & Hiebert, J. (1999).

■ What are the benefits to the state?

- The ICC identifies Iowa as a state that values high expectations for all students and all educators.
- Common beliefs about important content and robust instruction create continuity across the state for educators and students.

- The ICC galvanizes educators to take action to improve teaching and learning by encouraging educators and community members to strive toward a common goal with the same priorities.
- The ICC facilitates coherence. The orchestration of all the components fit together in a way that makes sense to stakeholders.
- The ICC extends the Iowa Core Content Standards and Benchmarks to identify priorities to improve the educational system in all of Iowa's schools.
- The ICC maximizes the effectiveness of the existing statewide assessment system, which was developed to comply with NCLB. Rather than spending precious resources on developing a new statewide test for accountability, funds will expand professional development, technical assistance and support for improved achievement.
- The ICC, if implemented with fidelity, improves test scores and increases the number of graduates who are poised to pursue post-secondary opportunities.
- The ICC, when implemented with fidelity, has the capacity to positively impact Iowa's economic base by providing more skilled employees for the workplace and students better prepared for post-secondary education.
- The ICC's emphasis on authentic learning provides Iowa with citizens better prepared to address the complexities of life in the 21st century.

■ How do we know the Iowa Core Curriculum is credible?

Multiple sources have been consulted in the development of essential concepts and skill sets of the ICC:

- Research and best practice literature for each content area has been reviewed.
- National Assessment of Educational Progress (NAEP) Frameworks provided a tool to monitor that essential content in each discipline is covered.
- Student performance data from ACT, Iowa Testing Services, and NAEP were used to identify the strengths and areas of needed improvement of Iowa's students.
- Standards from ACT, College Board, American Diploma Project, and others were utilized in an alignment study.
- National curriculum documents in literacy, mathematics, science, social studies, and 21st century skills, especially civic literacy, health literacy, financial literacy, technology literacy, and employability skills were integrated into the development.
- Other states' and international standards were consulted.

The Department has also accessed nationally recognized researchers and program development experts in developing the approach to implementation of effective instructional improvements:

- Drs. Fred Newmann, Bruce King, and Dana Carmichael are facilitating capacity building in quality instruction through the implementation of Authentic Intellectual Work in selected Iowa classrooms. The Department plans to continue to extend this work across Iowa in collaboration with the AEs.
- Dr. Richard Stiggins and other nationally known experts in formative assessment have developed training materials and have prepared Department consultants to replicate “Classroom Assessment for Learning.” The tenants of formative assessment are being integrated into all of the Department efforts with a specific focus on instruction.
- Dr. Richard Elmore has provided consultation and technical assistance about leadership and school reform to school administrators and other stakeholders in Iowa. The development of technical assistance for the ICC has utilized his writing about the core of educational practice. Elmore’s publications describe the leadership needed to reform schools in the areas of curriculum, instruction, and assessment.
- Dr. John Smithson of the Wisconsin Center for Education Research has assisted the Department in completing a study of current content and instructional practices in high school literacy, mathematics, and science. The results of this study will be used to help the Department establish professional development priorities.

■ What assumptions guide this work?

Challenging instruction yields positive student outcomes. The ICC helps to focus the curriculum on higher order skills and increases the cognitive demands placed on students. This is essential to accelerate student achievement.

Educators need specific content area support to accomplish the goals established by the Iowa Core Content Standards and Benchmarks. The Iowa Core Content Standards and Benchmarks set broad, overarching learning goals for Iowa’s students. These standards are clarified, refined, and extended by the ICC to create a more descriptive and specific focus for student learning. The specificity in the ICC enables teachers and administrators to integrate these into the existing curriculum and plan authentic learning experiences, establish worthwhile assessment practices, and develop accountability processes that are more meaningful to students, families, and communities.

State and national policy set the context for the ICC. Iowa legislation, policy, rules, and the state plan for implementing NCLB have requirements that must be

addressed when designing a standards-based system of curriculum and assessment.

Student data drive decisions about curriculum and instruction. The primary sources of the student achievement data are district-level assessments, classroom-level assessments, and the Iowa Tests of Basic Skills and the Iowa Tests of Educational Development. Other sources of data include, but are not limited to achievement gap analysis, academic goals, graduation rates, drop-out rates, attendance rates, postsecondary success data, core program completion, and professional development participation. The Instructional Decision Making Model provides direction to effectively meet each student's individual learning needs.

School teams use formative assessment effectively to monitor student learning and make decisions about effective instruction. Teachers examine student work to find out whether students have a deep understanding that enables them to apply knowledge. When teachers discover that adequate learning has not taken place, they re-teach and offer additional support for students.

Schools use program evaluation processes to monitor progress toward the initiative's goals and justify revisions in the action plans. Summative processes are used to evaluate the effectiveness of the initiative or instructional program and guide decisions about future directions.

The successful implementation of the ICC relies upon effective leadership and commitment from administration. School administrators will be actively engaged in the alignment process, the instructional review, and the development of subsequent changes in both content and instruction. Beyond alignment, there is considerable work for leadership: creating and sustaining a culture where professional development is valued; modeling leadership and supporting quality instruction; collaborating with colleagues around teaching and learning; and organizing analyzing and interpreting data to make instructional decisions around the ICC.

At the systems level, collaboration occurs among the Department, AEAs, and education stakeholders. Collaborative structures are needed to put the ICC into place. Stakeholder input, including that from business and industry, is essential to design a viable system and solve the problems that are inherent to any large scale systems change. A collaborative effort will be used to establish parameters, leadership, resources, and support to guide this reform effort.

Effective state-wide implementation requires a coordinated approach including consistent communication and differentiated delivery. Processes and tools will be implemented consistently across the state. Multiple points of entry will assist schools and AEAs in tailoring the ICC to most effectively meet the needs of each individual school.

Professional development is essential to build capacity for improved instruction in the core content areas. The ICC will only accomplish its desired intent if teachers develop the instructional skills to deliver the curriculum. High quality professional development with multiple opportunities for teachers and school leaders to participate in meaningful learning opportunities is needed to build knowledge and skills. Professional development engages school leaders and teachers in learning opportunities designed to

- Increase content knowledge and improve pedagogy;
- Facilitate rich discussions about instructional practices that will lead to pedagogical change;
- Keep participants focused on the essential concepts and skill sets and characteristics of effective instruction; and
- Collaborate to learn and apply new knowledge and skills.

The procedural work of conducting the alignment process and review of instructional practices are essential organizational efforts that will be critical anchor points for determining professional development priorities.

The professional development efforts will focus squarely on teaching practices, learning new pedagogy and content knowledge. The curriculum alignment work and professional development focused on instruction are critical complimentary pieces.

Collaboration at the school level is essential to the ICC approach.

Collaboration occurs among teachers, students, support staff, and administrators. Teachers working to integrate the ICC into classroom practice need the collegiality of peers to solve the problems inherent in learning new content and new skills. Teachers and school administrators will need to collaborate to analyze gaps in their curriculum, review instructional practices, and plan how to address identified needs. Such collaborative efforts will require time for teachers to meet on a regular basis and a structure for the tasks to be addressed during that time. Leadership and significant professional development resources will need to be committed.

The ICC relies on research and theory that are well grounded, nationally-recognized and reported in education's professional literature. The plans for the implementation of the ICC are based upon research and theory on effective practices in curriculum, instruction, and assessment within the content areas of literacy, mathematics, science, social studies, and 21st century skills. As teachers and administrators engage in research-based professional development, they will effectively implement instructional change.

The ICC helps local districts provide a guaranteed and viable curriculum.

Guaranteed and viable curriculum is a combination of factors including:

- Providing opportunities for students to learn the content being assessed in each content area; and

Ensuring that the articulated curriculum for a given course or grade level can be adequately addressed in the time available. (Definition adopted from Marzano, R. (2003) *What Works in Schools: Translating Research into Action*. ASCD.)

The ICC DE Team and the Work Teams have followed the following steps to work toward ensuring that the ICC supports a guaranteed and viable curriculum:

- Identified and communicated the content considered essential for all students.
- Developed an alignment process to be used by local districts to ensure that the local curriculum has the rigor and relevance needed by students and to reduce the amount of content covered to allow for more authentic instruction.
- Developed a process to review instructional practices and assist local districts in reducing instructional time spent on non-essential content and find ways to protect instructional time.

In addition, the Department continues to work on alignment of assessment systems with the ICC by:

- Collaborating with the Iowa Testing Programs to develop tools to measure the essential learning for all students.
- Implementing “Assessment for Learning” and “Assessment of Learning” into all Department efforts focused on instruction.

The ICC will only be effective if it results in deep, lasting changes in the day-to-day work of teachers in every classroom. The initial alignment work and formation of recommendations will have limited impact without active, sustained engagement and commitment to change practices. Teachers and administrators should expect changes in many parts of the system as they put these processes in place at the district, building, and classroom level.



Full implementation of the ICC is going to take time, persistence, and patience. Changing how teachers teach and the way people work is second order change (Marzano, Waters, & McNulty, 2005). Conducting the actions to operationalize the ICC is likely to be challenging. Leaders and practitioners will need to stay the course and support each other.

The ICC provides the mechanism to implement multiple elements of the high school reform initiative. The Iowa High School Project and the Iowa

Focus on High School Reform establish the need for high expectations, rigorous and relevant curriculum, professional development, aligned assessments, and collaborative leadership. The ICC offers the structures and tools to help accomplish these priorities.

- Who is leading the work to develop and build the statewide capacity to implement the Iowa Core Curriculum?
- The DE ICC Team at the Department has been formed to support implementation of the ICC statewide. The DE ICC Team includes consultants who represent literacy, mathematics, science, social studies, students with disabilities, early childhood, assessment, school improvement, leadership, and high school reform.
- The DE ICC Team works in conjunction with the ICC Advisory Team. This team is composed of representatives from urban, small and rural school districts, AEAs, and key stakeholder groups including the Iowa Association of School Board, Iowa State Education Association, and School Administrators of Iowa. Also included are representatives from the teacher preparation programs at the state's three Regents institutions: Iowa State University, University of Iowa, and University of Northern Iowa. This team will be charged with advising the Department in proposing a time line for implementation, assisting with creating the network, planning the professional development for the network, and monitoring the progress of the network.

School districts and the area education agencies play a critical role in delivering professional development and technical assistance as the ICC is implemented across the state. A network of practitioners will be organized to deliver the training and facilitation needed by schools to conduct the following actions critical to the successful implementation of the ICC:

- Aligning the district's standards, benchmarks, and curriculum to the ICC;
- Supporting improvements in instruction in the core content areas;
- Providing leadership and support for the successful implementation of the ICC in all schools;
- Identifying consistent practices and processes to ensure the successful implementation of ICC;
- Providing the structures and tools to enable schools to put the ICC in place;
- Disseminating information, technical assistance, and tools; and
- Interpreting state-level policy regarding requirements for accountability.

The network of trainers/facilitators will participate in capacity building to ensure the consistent implementation of technical assistance materials. The network will work directly with schools to complete an alignment process and subsequent

report identifying gaps. This group of trainers/facilitators will also play a collaborative role in helping school leaders establish a professional development plan for educators to improve their instructional practices that are aligned with the ICC.

■ What should be considered in the design for successful implementation?

It is the intent of the Department that the successful implementation of the ICC will be consistent across the state. Consistent technical assistance, processes, tools will be utilized by every school with the support of their AEA.

As the Department in collaboration with the AEAs undertakes the process of designing an implementation plan, the following questions are among those that need to be addressed:

- What support to school leaders need to effectively implement the Iowa Core Curriculum?
- To what extent do local standards, benchmarks, and curriculum align to the ICC?
- How might schools engage their staff in reviewing their curriculum content and instruction?
- What processes will result in all schools fully implementing the ICC? What resources will be needed?
- What professional development and technical assistance are needed and how should they be delivered and supported?
- How will the AEA, local school districts, and the Department work in concert to effectively implement the ICC?

The Department is moving forward to ensure that professional development is aimed at improving curriculum, instruction, and assessment is aligned with and supportive of the ICC. A description of the alignment is being developed in literacy, mathematics, science, and other priority content areas.

Timely communication about the expectations for school personnel, requirements for implementation, and how to access support will be provided.

Collaboration among the DE, AEAs, local districts, schools, and key stakeholders will guarantee each and every Iowa student a world-class education focused on essential content made meaningful through compelling and effective instructional strategies. Through this collective work, Iowa will maintain its reputation of providing the best educational opportunities available.

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