

Capture the Core

A Publication of the
Illinois State Board
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Kindergarten through
Second Grade

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Check Out the New ISBE Website

In December, the Illinois State Board of Education (ISBE), launched a newly redesigned website which is also mobile-friendly. Content is organized and prioritized by audience.

Along the top bar you can select if you wish to search by Administrator, Teacher, Families and Students or Community and Partners.

Also at the top are System Quick Links to ELIS (Educator License Information System), Illinois Report Cards and “How To” Videos on topics such as

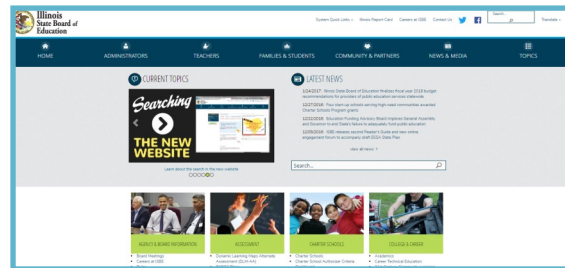
Navigating ELIS and applying for a Professional Educator License.

The cover page includes Current Topics and Latest News.

Scrolling down the home page you will find the latest Superintendent's Weekly Message, a calendar and Frequently Asked Questions.

The site offers translations to many other languages to support non-English speakers. This might be especially useful for parents.

The new ISBE website offers more up-to-date information to support you in your classroom. To investigate further go to: www.ISBE.net or click [here](#):



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PARCC Practice Tests are Now Available

Do you want to see PARCC items in action?

Would you like to know how PARCC is different from previous tests?

On the home page of PARRC (Partnership for

Assessment of Readiness for College and Careers), website there is a link entitled Test Preparation. Here you can find sample items, tutorials and practice tests for English/Language Arts and Mathematics.

Primary grades

Model Content Frameworks provide support for educators in primary grades.

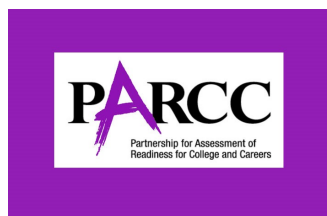
For ELA Content Model frameworks click [here](#).

For Mathematics content Model Frameworks, click [here](#).

To investigate practice tests further, go to:

<https://parcc.pearson.com/practice-tests/>

Or click [here](#)



Conventions, knowledge of language, and vocabulary extend across reading, writing, speaking, and listening.

Understanding the Language Standards

This month, a focus will be placed on Language Anchor Standard 5. The Anchor Standard states: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. Students must be able to come to appreciate that words have nonliteral meanings, shades of meaning, and relationships to

other words. Language choice is a matter of craft for both writers and speakers. New words and phrases are acquired not only through reading and being read to but also through direct vocabulary instruction and (particularly in the earliest grades) through purposeful classroom discussions around rich content.



Language Standard Five in Grades K-2

The Language Standards have specific grade level guidance that should be considered when creating tasks and activities that develop word meaning and relationships. A few guiding themes are:

- Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.

- Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
- Identify real-life connections between words and their use (e.g., note places at home that are cozy).
- Distinguish shades of meaning among verbs differing in manner

(e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings.

Provide a variety of experiences for students to use and respond to shades of meaning when reading, writing, and speaking/ listening. See below for strategies to support you.



Strategies to Support Language Standard Five

There are many ways that teachers can engage their students in becoming aware of the shades of meaning and relationships of words. Semantic gradients are a way to broaden and deepen students' understanding of related words. Students consider a continuum of words by order of degree. Semantic gradients often begin with antonyms, or

opposites, at each end of the continuum. This strategy helps students distinguish between shades of meaning. By enhancing their vocabulary, students can be more precise and imaginative in their writing. [Click here for a video and handouts available](#) from Reading Rockets.

Students can also play 'How Many' with [this worksheet](#). For each word, students write

as many synonyms as they can think of in the space provided. They pick three of the words and put them in order from weak to strong in the blanks provided.

Finally, play 'Concentration' with word cards. Create pairs of words that have similar meanings such as hop and jump. Print them on cards and cut apart. Students play to find the matches.

A Closer Look at Mathematical Practice Standard #3

The third Practice Standard, **Construct viable arguments and critique the reasoning of others**, requires students to make conjectures, build a logical progression of statements and analyze situations by breaking them into cases. Students need to use counterexamples, justify conclusions, communicate them to others, and respond to the arguments of others. Students compare the effectiveness of two plausible

arguments, distinguish correct logic or reasoning from that which is flawed, and explain any flaws. Students can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

How do I encourage MP3?

Provide problems that require students to do the following:

- Engage in reasoning and critical thinking.
- Develop mathematical

arguments that include diagrams, words and/or equations.

- Share mathematical thinking with another student.
- Reflect on a variety of solutions to one problem and to defend a solution.
- Think about explanations and discuss misconceptions.
- Discuss logical steps using precise language.



Engaging Students in MP3 in the K-2 Classroom

This task, from Illustrative Mathematics, effectively engages students in MP3 and is aligned to 2.OA Represent and solve problems involving addition and subtraction and 2.NBT5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Students regularly come across story problems. This particular problem requires more of students by having them “look across several related problems to notice generalizations about the behavior of the operations involved.” Here is the set of questions used to compose this particular problem:

- **Meg is holding 17 red balloons and 5 blue balloons. How many balloons is she holding?**

- **Time is holding 5 red balloons and 17 blue balloons. How many balloons is he holding? Did the first problem help you solve this problem? How?**

- **Meg is holding 22 balloons. 17 balloons fly away. How many balloons is she holding now? Did the other problems help you solve this problem? How?**

- **Tim is holding 22 balloons. 5 balloons fly away. How many balloons is he holding now? Did the other problems help you solve this problem?**

There is a clear expectation that students will not only solve the problems but also think about how each problem helped them solve

the next. After they have had an opportunity to work through the problems, they come together as a whole class to discuss the strategy aspect of the problem. It can be expected that most of the students will have the same answer to the problem, but there will be differences in their strategies and the way they looked for generalizations across the problems. This discourse provide the opportunity for full engagement in MP3. Students are going to critique the reasoning of others and will need to be able to effectively defend their reasoning.

Find the entire Meg’s Balloons problem along with commentary and video here:

https://www.illustrativemathematics.org/static/practice_standards/MP3_Grade2_MegsBalloons_withvidstill.pdf

Good mathematics is not about how many answers you know...It’s about how you behave when you don’t know.

~Author Unknown





Dimension #2: Crosscutting Concepts

This dimension of science education consists of the underlying themes that permeate the topics students will engage in. While these concepts have always existed, historically very little, if any, attention was devoted to them. Intentionally focusing

on the crosscutting concepts (CCC) will “help students develop a cumulative, coherent, and usable understanding of science and engineering.” (Committee on Conceptual Framework for the New K-12 Science Education Standards. et al.)

The seven crosscutting concepts are listed in the table below along with a description of how that CCC looks in this specific grade band along with an example of a Performance Expectation that engages students in that CCC.

“Some important themes pervade science, mathematics, and technology and appear over and over again, whether we are looking at an ancient civilization, the human body, or a comet. They are ideas that transcend disciplinary boundaries and prove fruitful in explanation, in theory, in observation, and in design.”

(Committee on Conceptual Framework for the New K-12 Science Education Standards. et al.)

| Crosscutting Concept: | Description of how the CCC looks in the K-2 classroom: | Example Performance Expectation that engages students in the CCC: |
|---------------------------------|--|--|
| Patterns | Children recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. | 1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted. |
| Cause and Effect | Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes. | 1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. |
| Scale, Proportion, and Quantity | Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length. | |
| Systems and System Models | Students understand objects and organisms can be described in terms of their parts; and systems in the natural and designed world have parts that work together. | K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. |
| Energy and Matter | Students observe objects may break into smaller pieces, be put together into larger pieces, or change shapes. | 2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. |
| Structure and Function | Students observe the shape and stability of structures of natural and designed objects are related to their function(s). | 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants |
| Stability and Change | Students observe some things stay the same while other things change, and things may change slowly or rapidly. | 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. |

Adapted from A Framework for K-12 Science Education.

Access printable pdf files of the tables [here](http://ilclassroomsinaction.org) on ilclassroomsinaction.org.

Resources:

- [A Framework for K-12 Science Education \(Chapter 4\)](#)
- [Teaching Channel Videos for the CCC](#)
- [Bozeman Science has a comprehensive video for each of the CCC.](#)

Upcoming Professional Learning Opportunity!

The science and social science content specialists have teamed up to create a unique workshop experience for K-5 educators. The workshop offered this spring regionally across the state will

focus on helping educators fully understand the shifts of the science and social science standards and develop strategies to meet these standards during their already full day. Educators will

experience inquiry and focus on using inquiry to meet the full intent of the standards. Keep an eye on ilclassroomsinaction.org for the details regarding dates, locations, and registration.

New Illinois-Created Resources Available!

The social science page on the IL Classrooms in Action website has had many new additions recently! The Social Science Standards Implementation Starter Kit has been posted on the social science resource page. The resources in this kit provide various types of support to educators working to understand and incorporate the new Illinois Social Science Learning Standards into curriculum. The [Starter Kit User Guide with Visual Resource Guide](#) will assist in identifying a potential process to use to support educators in the implementation process while also providing links to all kit resources. Three kit components are highlighted below.

Inquiry-Based Learning Webinar

In addition to two webinars that provide an overview of the social science standards, a newly available webinar discusses Inquiry-Based Learning in the Social Sciences. This webinar discusses what inquiry is, how it can be structured in the classroom, and ways to use the Standards to incorporate inquiry in the classroom. The webinar is available through the Implementation Kit User Guide or a [direct link](#) on the social science resources page.

Keep It, Tweak It, Delete It: Analysis of Current Social Science Curriculum

Each grade level handout allows teachers to reflect upon the true alignment of currently utilized social science curriculum. Educators can take a look at current lessons or units and evaluate which standards are fully met through current activities. These documents also highlight opportunities for growth that exist in current lessons in order to guide future implementation and alignment discussions.

The [Analysis of Current Social Science Curriculum](#) can be especially helpful as educators begin the implementation process since in order to understand any potential adjustments that may be needed, a baseline needs to be established. To use this analysis document, educators will need to have access to a copy of the relevant grade standards as well as the current curriculum in place. This document is most useful when honesty is emphasized! There is no need to be embarrassed of gaps, the purpose is to discover areas where growth is possible.

Many more resources exist as part of the Standards Implementation Starter Kit, check out all the new resources on the [Classrooms in Action social science page!](#)



Elementary Educator Workshops: Coming this Spring!

ISBE Content Specialists have developed a one-day science and social science workshop intended for elementary educators striving to integrate science and social science standards into their K-5 day. This workshop is specifically looking to empower teachers and educational leaders to bring about the change necessary

to implement the Illinois Learning Standards for Science and Social Science in elementary classrooms.

Educators will have the opportunity to learn more about the science and social science standards, experience elementary aligned content incorporating inquiry, and explore interdisciplinary lessons to deepen

understanding of the full intent of the Illinois Learning Standards for Social Science and Science.

Workshops will be offered in three locations across the state in late March or early April. Registration information will be posted on the IL Classrooms in Action professional learning page when available.

**Check the
professional
learning page for
more details soon!**

<http://bit.ly/2jAblbB>



Comprehensive System of Learning Supports



“If you want a child to be attentive and stay on task, and also if you want them to encode the information you’re giving them in their memory, you’ve got to give them regular breaks.”

-Dr. Bob Murry
Ohio State University
pediatrician

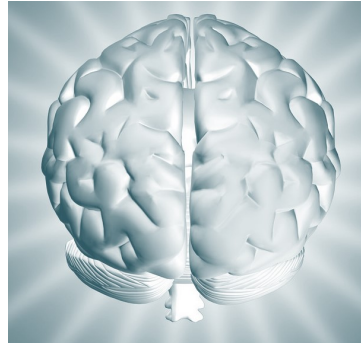
Check us out on the web:
[Illinois Classrooms in Action](#)



Physical Activity: What Research Says...

Students need physical activity for a healthy mind as well as a healthy body. Students’ cognitive, emotional and behavioral development is linked to physical activity. Studies looking at the effects of aerobic activity on several parts of the brain indicate different developmental indicators.

The hippocampus area in aerobically fit children and adults were found to be larger in volume and better in memory performance than peers who were less fit. (Erickson, et.al., 2011) The top portion of the Basal Ganglia (Dorsal Striatum) in fit children were shown to have larger volumes. This is the area associated with superior executive functioning skills, specifically on a



task that involved paying attention and ignoring distractions.

Researchers have begun using MRI technology to view the frontal cortex of the brain when children are engaged in thinking, playing and paying attention. Following a group of students for a semester that included 60+ minutes of physical activity daily and a control group of students that had no interaction with the researchers, studies found a marked difference in the MRI scans of the two groups. The fit group show more activity in all areas of the brain and faster responses.

Chaddock-Heyman, L., Erickson, K. I., Voss, M. W., Knecht, A. M., Pontifex, M. B., Castelli, D. M., Hillman, C. H., & Kramer, A. F. (2013). The effects of physical activity on functional MRI activation associated with cognitive control in children: A randomized controlled intervention. *Frontiers in Human Neuroscience*, 7, 2-13.

Classroom Brain Breaks and Activities



GoNoodle.com has activities to get kids moving and thinking! The online platform has music videos with which students can interact. A free account is a fully functional resource that allows educators to set up individual class accounts. The activities available support transitions, math practice, morning meetings, test preparation, ELA practice, energizing a class or just getting the wiggles out!

Six Spots: Number six spots around your room from 1-6. Have students each go to a spot of their choice. Choose a student to roll a die (if you can make a big one out of foam, it adds to the fun). All the students at the number rolled must go back to their seats. Students that are left go to a new spot, and the die is rolled again. Continue until only a few students are left.

Find It Fast: Call out a color or other trait (e.g. something round, something made of wood), and students must find an object in the room that fits the trait and get to it quickly.

Plates: Give each student a paper plate. Students must walk around the room balancing the plates on their heads. If a student drops his or her plate, the student must freeze until another student picks it up and places it back on the student’s head (while keeping his or her own plate in place, of course).

Trading Places: Have students stand behind their pushed-in chairs. Call out a trait, and everyone who has that trait must change places with someone else (students who do not have the trait stay where they are). Examples: “Everyone with curly hair.” “Everyone who ate cereal for breakfast.” “Everyone who is wearing stripes.”

Keep It Up: Students must keep a beach ball (or balloon) from hitting the ground. Add two or three balls to make it even more fun.