# Instructional Shifts- Coherence

# Kindergarten

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# Why Common Core?

Initiated by the National Governors Association (NGA) and Council of Chief State School Officers (CCSSO) with the following design principles:

- Result in College and Career Readiness
- Based on solid research and practice evidence
- Fewer, higher and clearer

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# The CCSS Requires Three Shifts in Mathematics

1. **Focus:** Focus strongly where the standards focus.
2. **Coherence**: *Think* across grades, and *link* to major topics
3. **Rigor:** In major topics, pursue *conceptual* **understanding,** procedural skill and *fluency*, and *application*

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# Coherence Across and Within Grades

- It's about math making sense.
- The power and elegance of math comes out through carefully laid progressions and connections within grades.

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# Coherence in Mathematical Practices


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# Looking For Coherence Within Kindergarten

- Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings and record each decomposition by a drawing or equation (e.g., 5=2+3 and 5=4+1).

K.OA.3

- What learning needs to occur before K.OA.3?

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# CCSS Evidence

- Know the number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.
- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

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# Looking for Coherence Across Grades

- Coherence is an important design element of the standards.

- "The Standards are not so much built from topics as they are woven out of progressions."

Structure is the Standards, Publishers' Criteria for Mathematics, Appendix

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# Coherence Card Activity

- Activity:  Place the standards of each color under the appropriate grade (K-8).

  - Determine a “theme” for your color.
  - No grade has two of the same color card.
  - Some “themes” that have only a few cards might represent consecutive grades and some may not.
  - Read each card in it’s entirety to help determine placement.
  - Do not check your Standards until you and your colleagues agree on the final product.
  - Discuss horizontal and vertical observations with your partners.

# Coherence Card Activity

What horizontal and vertical observations did you make?

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- https://www.teachingchannel.org/videos/teaching-math-ccss?fd=1

Start at 4:10. Stop at 5:53

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# Shift Two: Coherence Think across grades, and link to major topics within grades.

**Question One***:*

*"Name one topic that links from Kindergarten to First Grade and then to Second Grade."*

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# Shift Two: Coherence Think across grades, and link to major topics within grades.

**Question Two**:

*"What are two things teachers can do to learn about vertical alignment in the Common Core State Standards?"*

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# Resources

- www.corestandards.org
- www.teachingchannel.org
- www.achievethecore.org

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