



The Work Sampling System[®] Comparison Charts

Table I: Comparison of WSS, 4th Edition and WSS, 5th Edition Domains (minor changes were made)

WSS, 4th Edition	WSS, 5th Edition	5th Edition changes
1. Personal and Social Development	1. Personal and Social Development	The structure of this domain has remained the same except for the following: <ol style="list-style-type: none"> 1. eliminated references to childhood egocentrism, and instead followed new research that shows many behavioral issues with young children relate to their immature brains and the inability to control executive functions. 2. eliminated the performance indicators “begins to use classroom materials carefully” and “begins to use technology to assist with thinking and problem-solving.” Both are addressed throughout other indicators and domains. 3. added some examples to reflect self-confidence for children with many types of behavioral styles (not just extroversion). Many previous examples seemed weighted toward sociable or extroverted children. 4. added examples pertaining to goal setting in the Approaches to learning area. 5. added more examples pertaining to special education and technology when appropriate.
5. Social Studies	5. Social Studies	The structure of this domain has remained the same except for the addition of two indicators at the lower grade levels (“Demonstrates beginning awareness of community, city, and state” begins in Preschool-4 instead of Kindergarten, “Explores technology in their environment” begins in Preschool-3 instead of Preschool-4 and “Shows awareness of ways people affect their environment” begins in Preschool-4 instead of First Grade), and more examples pertaining to technology and to students in special education.
6. The Arts	6. The Arts	The structure of this domain has remained the same except for adding more examples pertaining to technology and to students in special education.
7. Physical Development and Health	7. Physical Development, Health, and Safety	The structure of this domain has remained the same except more examples were added for safety such as understanding and preventing bullying behavior. Examples pertaining to technology and to students in special education were also added when appropriate.



Table 2: Comparison of WSS, 4th Edition and WSS, 5th Edition Domain: Language and Literacy
(more substantial changes were made)

Functional areas and performance indicators in the Language and Literacy domain were revised to align with state and Common Core standards *when deemed developmentally appropriate by experts and research*. While most of the performance indicators from the WSS, 4th Edition were retained, added were presentation of ideas, and more indicators at the lower grade levels. English Language Learner performance indicators in Speaking and Listening were also added.

WSS, 4th Edition Language and Literacy	WSS, 5th Edition Language and Literacy
<p>A. Listening Gains meaning by listening. Follows two-step directions</p> <p>B. Speaking Speaks clearly enough to be understood by most listeners.</p>	<p>A. Speaking and Listening Gains meaning by listening Follows two-step directions Speaks clearly enough to be understood by most listeners. Follows rules for conversation. Begins to present knowledge and ideas (Kindergarten).</p>
<p>C. Reading Uses strategies to construct meaning from print. (First grade)</p> <p>B. Speaking Uses expanded vocabulary and language for a variety of purposes.</p> <p>D. Writing Uses strategies to create invented and conventional spellings.</p>	<p>B. Language: Conventions in Speaking and Writing Begins to understand representation and conventions of print. Uses strategies to create invented and conventional spellings, and begins to use correct punctuation (First grade). Begins to acquire and use increasingly complex vocabulary.</p>
<p>A. Listening Shows beginning phonological awareness.</p> <p>C. Reading Shows interest in letters and words. Begins to develop knowledge about letters (Preschool-4) Reads fluently and independently (Second grade).</p>	<p>C. Reading – Foundational Skills Demonstrates beginning phonological awareness. Begins to develop knowledge of letters and letter sounds (Preschool-4). Reads known words and simple sentences easily and fluently (First grade).</p>
<p>C. Reading Shows appreciation for books. Comprehends and responds to stories read aloud. Reads for varied purposes (Second grade).</p>	<p>D. Reading – Literature and Informational Text Begins to recount key ideas and details from text and integrates knowledge when applicable. Shows beginning appreciation and understanding of the basic structure and purpose of books. Begins to read for varied purposes (Kindergarten).</p>
<p>D. Writing Represents ideas and stories through pictures, dictation, and play. Uses scribbles and unconventional shapes to write. Understands purposes for writing (Preschool-4). Recognizes and uses basic conventions of print (First grade) Reviews, shares, and makes simple changes in writing. Gathers and uses information for research purposes.</p>	<p>Writing Represents stories through pictures, dictation, and play. Uses scribbles and unconventional shapes to write. Understands purposes for writing (Preschool-4). Uses feedback to revise, add detail or make a representation more accurate (Preschool-4). Gathers and uses information for research purposes (Kindergarten).</p>
	<p>English Language Acquisition Speaking Listening</p>

Note: Preschool-3 performance indicators were used above unless the indicator started at a higher grade. In those circumstances, the performance indicator was written starting at the lowest grade.



Table 3: Comparison of WSS, 4th Edition and WSS, 5th Edition Domain: Mathematical Thinking
(more substantial changes were made)

Functional areas and performance indicators in the Mathematical Thinking domain were revised to align with state and Common Core standards *when deemed developmentally appropriate by experts and research*. More indicators at the lower grade levels were added.

WSS, 4th Edition Mathematical Thinking	WSS, 5th Edition Mathematical Thinking
<p>A. Mathematical Processes Shows interest in solving mathematical problems. Uses words and representations to describe mathematical ideas (Kindergarten).</p> <p>C. Patterns, relationships, and functions Recognizes simple patterns and duplicates them (Preschool-4).</p>	<p>A. Processes and Practices Shows interest in solving mathematical problems. Begins to reason quantitatively. Uses words and representations to describe mathematical ideas. Begins to recognize patterns and makes simple generalizations (Preschool-4).</p>
<p>B. Number and operations Shows curiosity and interest in counting and numbers. Begins to understand relationships between quantities (Kindergarten). Makes reasonable estimates of quantities and checks for accuracy (First grade). Shows understanding of fractions and decimals as parts of wholes (Third grade).</p>	<p>B. Number Shows interest in counting. Shows interest in quantity. Begins to estimate quantity (Kindergarten). Understands fraction concepts (Third grade).</p>
<p>B. Number and operations Uses addition and subtraction to solve problems with one- and two-digit numbers (First grade). Demonstrates beginning understanding of multiplication and division (Second grade).</p>	<p>C. Operations and Algebraic Thinking Begins to understand addition and subtraction. Demonstrates basic number combination and computational fluency (Kindergarten). Begins to understand the base ten system (place value) (Kindergarten). Shows beginning understanding of multiplication and division (Second grade).</p>
<p>C. Patterns, relationships, and functions Sorts objects into subgroups that vary by one attribute. Expresses number relationships using equations and inequalities (Second grade).</p>	
<p>D. Geometry and spatial relations Identifies several shapes. Shows understanding of several positional words.</p>	<p>E. Geometry Shows understanding of several positional words. Identifies several shapes. Begins to explore composing and decomposing shapes.</p>
<p>F. Measurement Shows understanding of some comparative words. Participates in measuring activities. Estimates and measures using non-standard and standard units (Kindergarten). Shows awareness of time concepts (Kindergarten).</p>	<p>G. Measurement Shows understanding of some comparative words. Participates in measuring activities.</p>
<p>H. Data collection and probability Begins to collect data and make records using lists or graphs (Kindergarten). Begins to make predictions based on data (First grade).</p>	<p>I. Data Analysis Begins to collect, classify, and represent data (Kindergarten).</p>

Note: Preschool-3 performance indicators were used above unless the indicator started at a higher grade. In those circumstances, the performance indicator was written starting at the lowest grade.



Table 3: Comparison of WSS, 4th Edition and WSS, 5th Edition Domain: Scientific Thinking
(more substantial changes were made)

Functional areas and performance indicators in the Scientific Thinking domain were revised to align with state standards and A *Framework for K-12 Science in Education* when deemed developmentally appropriate by experts and research. While most of the performance indicators from the WSS, 4th Edition were retained, added were indicators at the lower levels as research suggests an increasing recognition of the cognitive capacity of young children, including the ability of even preschoolers to “use a wide range of reasoning processes that form the underpinnings of scientific thinking” (Duschl, Schwiengruber, & Shouse, 2007). Additionally, well before three and four years-old, children do in fact ask questions and generate explanations (Gopnik, Meltzoff, & Kuhl, 2009), and that the differences in how they express these may be attributable to language ability at the different ages.

WSS, 4th Edition Scientific Thinking	WSS, 5th Edition Scientific Thinking
<p>A. Inquiry Uses senses to observe and explore classroom materials and natural phenomena. Begins to use simple tools and equipment for investigation. Makes comparisons among objects.</p>	<p>A. Inquiry Skills and Practices Asks questions and addresses problems that arise during applications. Uses senses and simple tools to explore, try out solutions to problems, and gather and record data. Makes meaning from explorations, and generates ideas and solutions based on their own observations and human-made worlds. Communicates experiences, observations, and ideas with others through conversations, representations, and/or behavior.</p>
<p>B. Physical Science Identifies, describes, and compares properties of objects (Kindergarten) Explores and describes observable properties of light, heat, electricity, magnetism, and sound (First grade).</p>	<p>C. Physical Science Explores the properties of objects and materials, and how they may change, or be changed. Explores how objects and materials move and behave in different circumstances. Explores and describes observable phenomena related to light and sound.</p>
<p>D. Life Science Observes and describes characteristics, basic needs, and life cycles of living things (Kindergarten). Understands the relationship between the basic needs of organisms and their environment (Third grade).</p>	<p>E. Life Science Explores the characteristics of living things. Explores the needs of living things and how they are met. Explores variation and diversity among living things (Kindergarten).</p>
<p>F. Earth Science Explores and identifies properties of rocks, soil, water, and air (Kindergarten). Begins to observe and describe simple seasonal and weather changes (Kindergarten).</p>	<p>D. Earth Science Observes the sky and the natural and human-made objects in it. Explores the nonliving natural environment including rocks, water, soil, and sand. Explores and observes daily weather and seasonal changes.</p>

Note: Preschool-3 performance indicators were used above unless the indicator started at a higher grade. In those circumstances, the performance indicator was written starting at the lowest grade.

REFERENCES:

Duschl, R. A., Schwiengruber, H. A., & Shouse, A. W. (Eds.). (2007). *Taking science to school: Learning and teaching science in grades K-8*. National Academy Press.
Gopnik, A. Meltzoff, A.N., & Kuhl, P.K. (1999). *The Scientist in the Crib: Minds, Brains, and How Children Learn*. Fairfield, NJ: William Morrow & Col.