

# ***North Kansas City Schools Parent Guide to the Grade Card***



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## ***Grade 5 Parent Guide***

# Grade 5

## Measurement Topics and Descriptions

### Explanation of Reading Levels

(Fountas & Pinnell (1996) *Guided reading: Good first teaching for all children*. p.177; Jan Richardson (2016) *The Next Step Forward in Guided Reading*)

Emergent (EM) Description	Early (EA) Description	Transitional (TR) Description	Fluent (FL) Description
<p>Emergent Readers:</p> <ul style="list-style-type: none"> <li>heavily rely on information from pictures</li> <li>may attend to and use some features of print</li> <li>may notice how print is used</li> <li>may know some words</li> <li>use the introduced language pattern of books</li> <li>respond to texts by linking meaning with their own experience</li> <li>begin to make links between their own oral language and print</li> </ul>	<p>Early Readers:</p> <ul style="list-style-type: none"> <li>rely less on pictures and use more information from print</li> <li>have increasing control of early reading strategy</li> <li>know several frequently used words automatically</li> <li>read using more than one source of information</li> <li>read familiar texts with phrasing and fluency</li> <li>exhibit behaviors indicating strategies such as monitoring, searching, cross-checking, and self-correction</li> </ul>	<p>Transitional Readers:</p> <ul style="list-style-type: none"> <li>have full control of early strategies</li> <li>use multiple sources of information while reading for meaning</li> <li>integrate the use of cues</li> <li>have a large core of frequently used words</li> <li>notice pictures but rely very little on pictures to read the text</li> <li>for the most part, read fluently with phrasing</li> <li>read longer, more complex texts</li> </ul>	<p>Fluent Readers:</p> <ul style="list-style-type: none"> <li>use all sources of information flexibly</li> <li>solve problems in an independent way</li> <li>read with phrasing and fluency</li> <li>extend their understanding by reading a wide range of texts for different purposes</li> <li>read for meaning, solving problems in an independent way</li> <li>continue to learn from reading</li> <li>read much longer, more complicated texts</li> <li>read a variety of genres</li> </ul>

#### Reading Performance

Independent reading performance (what a child can do without support) will be reported out in two ways. The child's independent reading stage will be provided and whether their reading performance is at grade level (=), above grade level (+), or below grade level (-) expectations for that quarter.

### English Language Arts

#### Reading Foundational Skills

Students will know and apply grade-level phonics and words analysis skills (use roots and affixes to read unfamiliar multisyllabic words in and out of context) in decoding words. Students will also read on-level text with purpose, accuracy, and understanding.

#### Reading Fiction and Non-Fiction Text

Students will read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements.

#### Writing Craft

Students will compose a variety of texts (opinion, informative/explanatory, and narrative) that are clear and coherent in which the development and organization are appropriate to task, purpose and audience. Students will conduct research projects to build knowledge about a topic. With guidance and support from peers and adults, students will develop and strengthen writing as needed by planning, revising, and editing.

#### Language

Students will demonstrate command of the conventions of standard English grammar, usage, and mechanics when writing, speaking, reading, and listening. They must also be able to determine or clarify the meaning of grade-level appropriate words encountered through listening, reading, and media use; come to appreciate that words have non-literal meanings, shades of meaning, and relationships to other words; and expand their vocabulary in the course of studying content.

#### Listening and Speaking

Students will effectively engage in a range of collaborative discussions with diverse partners on *grade 5* topics and texts, building on others' ideas and expressing their own clearly. Students will also adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

### Mathematics

#### Number Sense and Operations in Base Ten

Students will read, write and identify numbers from billions to thousandths using number names, base ten numerals and expanded form; compare two numbers from billions to thousandths using the symbols  $>$ ,  $=$  or  $<$ , and justify the solution; understand that in a multi-digit number, a digit represents  $1/10$  times what it would represent in the place to its left; evaluate the value of powers of 10 and understand the relationship to the place value system; round numbers from billions to thousandths place; add and subtract multi-digit whole numbers and decimals to the thousandths place, and justify the solution; multiply multi-digit whole numbers and decimals to the hundredths place, and justify the solution; and, divide multi-digit whole numbers and decimals

to the hundredths place using up to two-digit divisors and four-digit dividends, and justify the solution.

### **Number Sense and Operations in Fractions**

Students will understand that parts of a whole can be expressed as fractions and/or decimals; convert decimals to fractions and fractions to decimals; compare and order fractions and/or decimals to the thousandths place using the symbols  $>$ ,  $=$  or  $<$ , and justify the solution; estimate results of sums, differences and products with fractions and decimals to the thousandths; justify the reasonableness of a product when multiplying with fractions; solve problems involving addition and subtraction of fractions and mixed numbers with unlike denominators, and justify the solution; extend the concept of multiplication to multiply a fraction or whole number by a fraction; and, extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations.

### **Relationships and Algebraic Thinking**

Students will investigate the relationship between two numeric patterns; write a rule to describe or explain a given numeric pattern; write, evaluate and interpret numeric expressions using the order of operations; translate written expressions into algebraic expressions; and, solve and justify multi-step problems involving variables, whole numbers, fractions and decimals.

### **Geometry and Measurement**

Students will understand that attributes belonging to a category of figures also belong to all subcategories; classify figures in a hierarchy based on properties; analyze and describe the properties of prisms and pyramids; understand the concept of volume and recognize that volume is measured in cubic units; apply the formulas  $V = l \times w \times h$  and  $V = B \times h$  for volume of right rectangular prisms with whole-number edge lengths; define a first quadrant Cartesian coordinate system; plot and interpret points in the first quadrant of the Cartesian coordinate plane; convert measurements of capacity, length and weight within a given measurement system; and, solve multi-step problems that require measurement conversions.

### **Data and Statistics**

Students will create a line graph to represent a data set, and analyze the data to answer questions and solve problems and create a line plot to represent a given or generated data set, and analyze the data to answer questions and solve problems, recognizing the outliers and generating the median.

### **Standards for Mathematical Practice**

The Standards for Mathematical Practice describe varieties of expertise we work to develop in our students. In doing so, we expect students to make sense of problems and persevere in solving them; reason abstractly and quantitatively; construct viable arguments and critique the reasoning of others; model with mathematics; use appropriate tools strategically; attend to precision; look for and make use of structure; and, look for and make use of regularity in repeated reasoning.

## **Science**

### **Energy**

Students will develop a model to describe that objects can be seen only when light is reflected off them or when they produce their own light.

### **The Universe**

Students will support an argument with evidence that the gravitational force exerted by Earth on objects is directed toward the planet's center. Students will use models to describe that energy stored in food was once energy from the sun. Students will also make observations during different seasons to relate the amount of daylight to the time of year and investigate patterns in seen in light (shadows and appearance of stars) during those seasons.

### **Water in the Earth's Systems**

Students will investigate how Earth's geosphere, biosphere, hydrosphere, and atmosphere interact. While studying this, students will describe and graph the amounts and percentages of water and fresh water on Earth and how that water is distributed. Students will also investigate ways to protect Earth's resources and environment.

### **Weather**

Students will identify and use appropriate tools to collect weather data (i.e. thermometer, barometer, rain gauge, satellite images) and be able to summarize the relationships between the different sets of data collected.

### **Force and Motion**

Students will plan and conduct an investigation to show evidence of the effects of balanced and unbalanced forces on the motion of an object.

Students will plan and conduct a fair test to compare and contrast the forces required to overcome friction when an object moves over different surfaces. Students will use information they have gathered to predict how changes in the amount of force or the mass of an object affects the motion of that object.

### **Energy**

Students will construct an explanation relating the speed of an object to the energy of that object. Students will design, test and refine a device that converts energy from one form to another.

### **Simple Machines**

Students will use models to explain that simple machines change the amount of effort force needed and/or the direction of the force.

### **Engineering, Technology and Application**

Students will plan and carry out fair tests in which variables are controlled and failure points are considered, as well as identify aspects of a model or prototype that can be improved. Students generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Students will define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time, or cost.

# ***Social Studies***

## **Democracy**

Explain the purpose of the Declaration of Independence and demonstrate understanding of its message. Students will also understand important principles of the Constitution such as limited and unlimited government, rule of law, majority rule, minority rights, separation of powers, checks and balances, and the amendment process.

## **Expansion and Diffusion**

Students will study the early explorers and the changes brought to the New World. Students will study the differences between the Native American groups and colonies. Students will study westward movement.

## **Economics**

Students will understand the economic principle of trade off's.

## **Interactions Between Cultures and People**

Students will examine cultural interactions among Native Americans, immigrants from Europe and Africans brought to America and causes for change in ideas, concepts and traditions over time. Students will also describe the early religious groups, including what factors influence inclusion or exclusion.

## **Conflict and Cooperation**

Students will examine the consequences of the French and Indian War. Students will also study the Battle of Lexington, Concord, and Bunker Hill.

## **Geography and Geographic Tools**

Students will identify human characteristics, such as people's education, language, diversity, economies, religions, settlement patterns, ethnic background and political systems. Students will also locate historic colonies, major U.S. cities, states and major topographic features of the U.S. using their absolute and relative location.

## **Influential Individuals**

Students will identify the individual leaders during the Civil War: Grant, Lee, Lincoln and Davis.

## **People, Places and the Environment**

Students will identify major patterns of population distribution and how to use geography to interpret the past, explain the present, and plan for the future. Students will also examine the three colonial regions, New England, Middle, and Southern and the specialization of labor within them.