

# ISTEP+ Performance Level Descriptors

## Mathematics – Grade 3

### Grade 3

#### Pass+

*Pass+* students demonstrate advanced mathematical and problem-solving skills. Students fully understand the relationships among numbers, competently solve a variety of problems using addition and subtraction, and skillfully select appropriate symbols and operations to solve number and functional relationships. Students utilize appropriate units of measure to solve problems, and they describe and compare the attributes of plane and solid shapes, using their understanding to show relationships and solve problems. *Pass+* students solve sophisticated problems, support their solutions, and generalize the results to other situations.

Some examples of specific knowledge, skills, and abilities for Grade 3 students scoring at the *Pass+* level include:

- Show and compare equivalent (equal) fractions
- Know and use the opposite of multiplication and division
- Solve number problems where two sides are equal.
- Describe, create and continue number patterns that use multiplication
- Look at problems and tell the importance of information, sequence of the information and observe the patterns
- Use evidence to explain why an answer is correct

#### Pass

*Pass* students demonstrate proficient mathematical and problem-solving skills. Students understand relationships among numbers; solve problems using addition and subtraction, and select appropriate symbols and operations to solve simple number and functional relationships. Students describe and compare the attributes of shapes and utilize appropriate units of measure. *Pass* students experience success when solving problems, communicating ideas, and applying mathematical knowledge to a variety of other situations.

Some examples of specific knowledge, skills, and abilities for Grade 3 students scoring at the *Pass* level include:

- Name words and number combinations to represent whole numbers
- Show multiplication as repeated addition
- Show division as repeated subtraction
- Make a pattern that repeats using multiplication
- Know that quadrilaterals are 4-sided shapes
- Measure line segments to the nearest half-inch

- Add units of length that may require regrouping of inches to feet
- Carry out simple conversions within a measurement system
- Compute how much time has passed between one activity and another
- Use information from simpler problems to solve more difficult problems
- Use correct mathematical language while explaining answers to problems

## **Did Not Pass**

*Did Not Pass* students demonstrate a limited understanding of mathematical and problem-solving skills. Students may find it difficult to understand relationships among numbers, attempt to solve problems using addition and subtraction, and strive to select symbols to solve simple number problems. Students may struggle with describing and comparing the attributes of shapes and recognizing simple units of measure. *Did Not Pass* students find it challenging to make decisions about how to approach problem-solving situations, how to communicate their ideas, and how to apply mathematical knowledge to other situations.

Some examples of specific knowledge, skills, and abilities for Grade 3 students scoring at the *Did Not Pass* level include:

- Count, read, write and recognize the place value of numbers up to 1,000
- Know multiplication facts for 2's, 5's and 10's
- Continues simple number patterns using manipulatives
- Place and name numbers on a number line up to 10
- Use the terms point, line and line segment in telling about two dimensional shapes
- Draw lines and line segments
- Tell time to the nearest minute
- Use real or play money to decide whether there is enough money to make a purchase
- Solve and check problems
- Decide whether an answer makes sense