

# Essential Math Skills

*The Essential Math Skills Inventory* is a simple format for systematically assessing the most crucial skills in the development of early numeracy. The inventory serves as an on-going formative assessment tool, regularly updated by the teacher/parent, so you can identify specifically what students know and what they are ready to learn. These skills are the core of the core (CCSS), and cannot be merely “covered”. These are the skills we must ensure students learn to a level of deep understanding and application. These are the foundation skills upon which a lifetime of successful mathematical learning will be built.

## **Pre-Kindergarten Skills**

Skill 1: Demonstrates one-to-one correspondence for numbers 1–10, with steps

Skill 2: Demonstrates one-to-one correspondence for numbers 1–10, with manipulatives

Skill 3: Adds on using numbers 1–10, with steps

Skill 4: Adds on using numbers 1–10, with manipulatives

## **Kindergarten Skills**

Skill 5: Demonstrates counting to 100

Skill 6: Has one-to-one correspondence for numbers 1-30

Skill 7: Understands combinations ( up to 10)

Skill 8: Recognizes number groups without counting (2–10)

## **Grade 1 Skills**

Skill 9: Counts objects with accuracy to 100

Skill 10: Replicates visual or movement patterns

Skill 11: Understands concepts of adding on or taking away (to 30)

Skill 12: Adds/subtracts single digit problems on paper

Skill 13: Shows a group of objects by number (to 100)

## **Grade 2 Skills**

Skill 14: Quickly recognizes number groups (to 100)

Skill 15: Adds/subtracts from a group of objects (to 100)

Skill 16: Adds/subtracts double digit problems on paper

Skill 17: Counts by 2, 3, 4, 5, and 10 using manipulatives

Skill 18: Solves written and oral story problems using the correct operations (addition and subtraction)

Skill 19: Understands/identifies place value to 1,000

## **Grade 3 Skills**

Skill 20: Reads and writes numbers to 10,000 in words and numerals

Skill 21: Uses common units of measurement: Length, Weight, Time, Money, Temperature

Skill 22: Can add or subtract three digit problems on paper with regrouping

Skill 23: Can round numbers to the 10s

Skill 24: Can round numbers to the 100s

Skill 25: Add and subtract 2 digit numbers mentally

Skill 26: Counts by 5, 6, 7, 8, 9, 10 using manipulatives

Skill 27: Uses arrays to visually represent multiplication

Skill 28: Recognizes basic fractions

Skill 29: Solves written and oral story problems using the correct operation (addition, subtraction, and grouping)

*Essential Math Skills: Over 250 Activities to Develop Deep Understanding, PreK to Grade 3 and The Essential Math Skills Inventory* are available from Shell Education, [Shelleducation.com](http://Shelleducation.com).

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