Cognition: Math (COG: MATH) is a domain of the Kindergarten Individual Development Survey (KIDS). Kindergarten teachers are required to evaluate all students on four measures in COG: MATH. This document is intended to support teachers in recording observations for Number Sense of Math Operations (COG: MATH 3).

**When will I observe?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Whom will I observe?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How do I plan to collect evidence? \_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**This observation took place:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Number Sense of Math Operations (COG: MATH 3)**

Child shows increasing ability to add and subtract small quantities of objects

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Building** | | | **Integrating** | | |
| **Earlier** | **Middle** | **later** | **Earlier** | **Middle** | **later** |
| Attends to or explores | Identifies the new | Uses counting to add or | Solves simple addition | Represents and solves | Represents and solves |
| changes in numbers of | number | subtract one or two | or subtraction word | addition and subtraction | addition and subtraction |
| objects | of objects after one | objects to or from a | problems | problems with totals up | word problems with |
|  | object is added to or | group of at least four | by using fingers or | to 10 by using objects, | totals up to 20 by using |
|  | removed from a set of | objects | objects to represent | drawings, or fingers, or | objects, drawings, and |
|  | two or three objects |  | numbers or by mental | by mental calculation; | equations, and applying |
|  |  |  | calculation | *and*  Demonstrates understanding that numbers (10 or smaller) can be decomposed in more | advanced strategies (e.g., count-on), including strategies that reflect understanding  of properties of addition and subtraction |
|  |  |  |  | than one way (e.g., |  |
|  |  |  |  | 7=5+2; 7=6+1) |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Building** | | | | **Integrating** | | |
| **Earlier** | | **Middle** | **later** | **Earlier** | **Middle** | **later** |
|  |  | |  |  |  |  |