



Kindergarten Mathematics

June 2009

1st Trimester

Number Sense

STUDENTS UNDERSTAND THE RELATIONSHIP BETWEEN NUMBERS AND QUANTITIES.

- Count, recognize, represent, name, and order objects to 30.
- Compare two or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.
- Use tools and strategies, such as manipulatives or sketches, to model problems. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to count, recognize, represent, name and order objects.	Inconsistently counts, recognizes, represents, name and order objects to 30.	Count, recognize, represent, name and order objects to 10	Count, recognize, represent, name and order objects beyond 10.
Unable to compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Inconsistently able to compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Compare 2 or more sets of objects (more than 10 objects in each group) and identify which set is equal to, more than, or less than the other.

Algebra and Functions

STUDENTS SORT AND CLASSIFY.

- Identify, sort, and classify objects by attribute and identify objects that do not belong to a particular group (e.g., all these balls are green, those are red).
- Explain the reasoning used with concrete objects and/or pictorial representations. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to identify and sort objects.	Identify objects.	Identify and sort objects.	Sort and tell how objects were sorted using same objects in a different way.

Measurement and Geometry

STUDENTS IDENTIFY COMMON OBJECTS IN THEIR ENVIRONMENT AND DESCRIBE GEOMETRIC FEATURES.

- Identify and describe common geometric objects (circle, square, triangle, rectangle, cube, sphere, cone, rectangle).
- Explain the reasoning used with concrete objects and/or pictorial representations. (MR)
- Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to identify and describe common geometric shapes (circle, triangle, rectangle, square).	Able to identify and/or describe some common geometric shapes (circle, triangle, rectangle, square).	Identify and describe common geometric objects (circle, square, triangle, rectangle, cube, sphere, cone, rectangle).	Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).
Unable to identify and describe geometric shapes (circle, triangle, rectangle, square, cube, cone, sphere).	Identify and describe geometric shapes (circle, triangle, rectangle, square, cube, cone, sphere).	Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).	Without using direct comparison, student is able to apply what they know about the reference object to make estimates about other situations.

Statistics, Data Analysis and Probability

STUDENTS COLLECT INFORMATION ABOUT OBJECTS/EVENTS IN THEIR ENVIRONMENT.

- Pose information questions; collect data; and record the results using objects, pictures, and picture graphs.
- Identify, and extend simple patterns (such as circles or triangles) by referring to their shapes, sizes, or colors.
- Determine the approach, materials, and strategies to be used. (MR)
- Explain the reasoning used with concrete objects and/or pictorial representation. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to formulate questions about an existing graph.	Able to formulate their own questions about an existing graph.	Pose information questions, collect data, and record the results using objects, pictures, and picture graphs.	Pose information questions, collect data, record the results using objects, and interpret pictures and picture graphs.
Unable to identify, describe, or extend a pattern.	Able to identify, describe, and/or extend a pattern.	Identify, describe, and extend simple patterns by referring to their shapes, sizes, or colors.	Able to identify, describe, and explain the extension of a pattern by describing the term of the pattern.

2nd Trimester

Number Sense

STUDENTS UNDERSTAND THE RELATIONSHIP BETWEEN NUMBERS AND QUANTITIES.

- Count, recognize, represent, name and order objects to 30.
- Know that larger numbers describe sets with more objects in them than the smaller numbers have.
- Use tools and strategies, such as manipulatives or sketches, to model problems. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to count, recognize, represent, name and order up to 10.	Inconsistently counts, recognizes, represents, name and order objects to 30.	Count, recognize, represent, name and order objects to 20.	Count, recognize, represent, name, and order objects more than 20.
Unable to compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Inconsistently able to compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Compare 2 or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other.	Compare 2 or more sets of objects (more than 10 objects in each group) and identify which set is equal to, more than, or less than the other.

STUDENTS UNDERSTAND AND DESCRIBE SIMPLE ADDITIONS AND SUBTRACTIONS.

- Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).
- Determine the approach, materials, and strategies to be used. (MR)
- Make precise calculations and check the validity of the results in the context of the problem. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to use concrete objects to determine the answers to addition or subtraction problems (for two numbers that are each less than 10).	Inconsistently use concrete objects to determine the answers to addition or subtraction problems (for two numbers that are each less than 10).	Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).	Able to determine the answers to addition and subtraction problems (for 2 numbers that are each less than 10) without concrete objects.

Measurement and Geometry

STUDENTS IDENTIFY COMMON OBJECTS IN THEIR ENVIRONMENT AND DESCRIBE GEOMETRIC FEATURES.

- Identify and describe common geometric objects (circle, square, triangle, rectangle, cube, sphere, cone, rectangle).
- Explain the reasoning used with concrete objects and/or pictorial representations. (MR)
- Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to formulate questions about an existing graph.	Able to formulate their own questions about an existing graph.	Pose information questions, collect data, and record the results using objects, pictures, and picture graphs.	Pose information questions, collect data, record the results using objects, and interpret pictures and picture graphs.

3rd Trimester

Number Sense

STUDENTS UNDERSTAND THE RELATIONSHIP BETWEEN NUMBERS AND QUANTITIES.

- Count, recognize, represent, name and order objects to 30.
- Use tools and strategies, such as manipulatives or sketches, to model problems. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to count, recognize, represent, name, and/or order objects to 30.	Inconsistently count, recognize, represent, name, and/or order objects to 30.	Count, recognize, represent, name, and order objects to 30.	Count, recognize, represent, name, and order objects beyond 30.

STUDENTS UNDERSTAND AND DESCRIBE SIMPLE ADDITIONS AND SUBTRACTIONS.

- Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).
- Determine the approach, materials, and strategies to be used. (MR)
- Make precise calculations and check the validity of the results in the context of the problem. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to use concrete objects to determine the answers to addition or subtraction problems (for two numbers that are each less than 10).	Inconsistently use concrete objects to determine the answers to addition or subtraction problems (for two numbers that are each less than 10).	Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).	Able to determine the answers to addition and subtraction problems (for 2 numbers that are each less than 10) without concrete objects.

STUDENTS USE ESTIMATION STRATEGIES IN COMPUTATION AND PROBLEM SOLVING THAT INVOLVE NUMBERS AND QUANTITIES.

- Recognize when an estimate is reasonable.
- Students solve problems in reasonable ways and justify their reasoning. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to recognize when an estimate is reasonable.	Inconsistently recognizes when an estimate is reasonable.	Recognize when an estimate is reasonable.	Able to adjust initial estimate when more information is presented.

Measurement and Geometry

STUDENTS IDENTIFY COMMON OBJECTS IN THEIR ENVIRONMENT AND DESCRIBE GEOMETRIC FEATURES.

- Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).
- Explain the reasoning used with concrete objects and/or pictorial representations. (MR)
- Identify and describe common geometric objects (circle, square, triangle, rectangle, cube, sphere, cone, rectangle).

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to identify and describe geometric shapes (circle, triangle, rectangle, square, cube, cone, sphere).	Identify and describe geometric shapes (circle, triangle, rectangle, square, cube, cone, sphere).	Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).	Without using direct comparison, student is able to apply what they know about the reference object to make estimates about other situations.
Unable to identify and describe common geometric shapes (circle, triangle, rectangle, square).	Able to identify and/or describe some common geometric shapes (circle, triangle, rectangle, square).	Identify and describe common geometric objects (circle, square, triangle, rectangle, cube, sphere, cone, rectangle).	Compare familiar plane and solid objects by common attributes (position, shape, size, roundness, number of vertices).

STUDENTS UNDERSTAND THAT OBJECTS HAVE PROPERTIES.

- Compare the weight and capacity of objects by making direct comparisons with reference objects (lighter, heavier or holds more).
- Determine the approach, materials, and strategies to be used. (MR)
- Explain the reasoning used with concrete objects and /or pictorial representations. (MR)

Rubric

FAR BELOW/BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Unable to compare the length weight and capacity of objects by making direct comparisons with reference objects(lighter, heavier, holds more).	Inconsistently compare the length and weight of objects by making direct comparisons with reference objects (shorter, longer, lighter, heavier).	Compare the length, weight and capacity of objects by making direct comparisons with reference objects (lighter, heavier, holds more).	Without using direct comparison, student is able to apply what they know about the reference object to make estimates about other situations.

Visalia Unified School District Technology Standards, K-12

1. General technology knowledge & skills

- 1.1 Hardware care
- 1.2 OS literacy
- 1.3 File management (file navigation, folder/sub folder organization, save/open/delete/rename commands)
- 1.4 Keyboarding (6th grade/15 wpm, 8th grade/20 wpm)
- 1.5 Peripheral use (printer, digital camera/camcorder, scanner)

2. Writing, publishing & presentation with technology tools

- 2.1 Word processor (i.e.; Word, Student Writing Center, Story Book Weaver)
 - ◆ screen awareness (pull down menus, scroll bars, window menu, view menu)
 - ◆ editing tools (cut, copy, paste, find/replace)
 - ◆ formatting tools (font, alignment, page/paragraph setup)
- 2.2 Publishing & presentation (i.e.; Word, Publisher, Print Shop, KidPix, PowerPoint, FrontPage, Hyperstudio, Web Studio)
 - ◆ Audience clarification
 - ◆ Data organization
 - ◆ Screen awareness, program mechanics
 - ◆ Drawing tools
 - ◆ Graphic manipulation, graphic types
 - ◆ Design rules

3. Data analysis & problem solving with technology tools

- 3.1 Spreadsheet (i.e.; Excel, Cruncher)
 - ◆ Screen awareness, program mechanics
 - ◆ Page layout / data format
 - ◆ Data types (text, number, formulas)
 - ◆ Graph/chart format & interpretation
 - ◆ Data manipulation & presentation
- 3.2 Database (i.e.; Access)
 - ◆ Screen awareness, program mechanics
 - ◆ Page & report design
 - ◆ Data entry
 - ◆ Data manipulation & presentation
- 3.3 Concept mapping (i.e.; Inspiration)
 - ◆ Screen awareness, program mechanics
 - ◆ Idea organization
 - ◆ Idea presentation
- 3.4 Simulations (i.e.; Tom Snyder productions, Web quest)
 - ◆ Screen awareness, program mechanics

4. Information literacy, research & online communication with technology tools

- 4.1 Online search tools
 - ◆ Edited (print) vs. non-edited (online)
 - ◆ Athena book search
 - ◆ Search strategies
 - ◆ Site validation
 - ◆ Citation
- 4.2 Online communication tools
 - ◆ Email
 - ◆ Listserv
 - ◆ Discussion board

5. Responsible & ethical uses of technology

- 5.1 Copyright
- 5.2 Email etiquette & respectful communication
- 5.3 Password protection
- 5.4 Web use
 - ◆ Protection of personal information
 - ◆ Responsible Web viewing

Prior to the completion of 3rd grade, students will:

STANDARD	SUGGESTED APPLICATION
<p>1. General technology knowledge & skills</p> <p>1.1 Practice care and responsible use with all equipment.</p> <p>1.1 Communicate about technology using developmentally appropriate terms. List may include: computer, monitor, keyboard, mouse, memory, menu, window</p> <p>1.2 Use mouse & keyboard to control main functions of operating sys.</p> <ul style="list-style-type: none"> ◆ Proper login & shutdown ◆ Launch & close programs (double click or program menu) ◆ Use commands from pull down menus ◆ Working with capitals, symbols, delete, backspace, escape spacebar and general text. <p>1.3 Save and open a file to a directed location.</p> <p>1.4 Develop a habit of typing from home row.</p> <p>1.5 Print a copy of their work.</p> <p>1.5 Use a digital camera to communicate an idea</p> <p>1.5 Use a paint program to illustrate a story.</p>	<p>Workstation</p> <p>Poster by computer stations</p> <p>Windows 95/98/2000</p> <p>Windows 95/98/2000</p> <p>Printer, Camera</p> <p>KidPix</p>
<p>2. Writing, publishing & presentation with technology tools</p> <p>2.1 Use a word processor to write a story.</p> <p>2.2 Mix text and graphics to illustrate a piece of writing.</p>	<p>Word, KidPix, Writing & Publishing Center, Story Book Weaver, KidWorks</p>
<p>3. Data analysis & problem solving with technology tools</p> <p>3.1 Understand the parts of a graph.</p>	<p>Excel, Cruncher</p>
<p>4. Information literacy, research & online communication with technology tools</p> <p>4.1 Gather information from a designated Web site (text or graphic information).</p> <p>4.2 With teacher assistance communicate with a teacher, family member, author, field expert, or other student via email.</p>	<p>IE 4+, Internet access</p>
<p>5. Responsible & ethical uses of technology</p> <p>5.1 Demonstrate positive social and ethical behavior when using technology.</p>	<p>NA</p>