

Noah's Addition and Subtraction



Subject: Math

Grade Level: Kindergarten

Goals: The students will be able to add and subtract numbers 0-10 using manipulatives.

Objectives: The students will be able to do addition and subtraction problems using numbers 0-10 correctly.

Standards:

NCTM Standards: K-2 Numbers and Operations

- count with understanding and recognize "how many" in sets of objects
- develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers;
- understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations;
- understand the effects of adding and subtracting whole numbers;
- develop and use strategies for whole-number computations, with a focus on addition and subtraction;
- develop fluency with basic number combinations for addition and subtraction;
- use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.

Virginia Standards of Learning: Kindergarten

- Math K.6: The student will add and subtract whole numbers, using up to 10 concrete items.
- C/T K-2.3: The student will practice responsible use of technology systems, information, and software.
 - Know the school's rules for using computers.
 - Understand the importance of protecting personal information or passwords.
 - Understand the basic principles of the ownership of ideas.
- C/T K-2.4: The student will use technology responsibly.
 - Demonstrate respect for the rights of others while using computers.
 - Understand the responsible use of equipment and resources.

Prior Knowledge: The students should be able to recognize and print numbers 0-10, and count up to 10. The students should have mastered the concept of addition and be familiar

with the manipulatives being used. They need to have access to the internet for enrichment activities.

Materials:

- (Optional for formal assessment) assessments
- Variety of manipulatives (animal counters, foam squares, even beans).
- Noah's Ark (a container will do since this age loves to pretend)
- Pencils
- (Optional) Dry erase board
- (Optional) Dry erase markers
- Computer with internet access
- Animal Subtraction worksheet with pictures

Lesson Overview: Give students small toy animals for manipulatives and designate a box or other container as Noah's Ark.

Students will be able to use the toys to complete addition and subtraction stories.

Lesson Procedures:

Introduction:

- The teacher will read Genesis 7 or another account of Noah and the Flood and introduce the vocabulary term subtraction. The teacher will remind students that adding is putting two parts together. The teacher will use the animals to show two of the same kind of animal getting on the ark. Teacher will say "one (elephant) plus one (elephant) equals two (elephants). (If toys are not available teacher may draw pictures on a dry erase board). Students will take turns pairing up two like animals and saying the word problem aloud as the teacher had modeled.

Main Activity:

- The teacher will introduce subtraction by removing animals in pairs from the ark. Teacher will say "Remember how Noah sent the dove out of the ark? Two doves minus one dove equals one dove"
- The teacher will then explain that subtraction is starting out with a group or whole and then taking items or pieces away from that group or whole.
- Teacher will say "Let's pretend that when the animals came off the ark, one animal went first while the other one watched. Remember how Noah sent one dove out first? Let's do it like a math problem. Two doves minus one dove is one dove."
- Teacher will say. "Let's pretend some time has passed and the animals were fruitful and had babies. Now we have groups of animals." Teacher will demonstrate subtracting using the animals. Students may suggest word problems and then will take turns choosing their own problem, moving the animals and saying the word problem aloud as the teacher had modeled.

Conclusion:

- The students will be given an animal Subtraction Worksheet to complete. This is an intermediate step between manipulation and subtraction without a visual

aid. Students should have animal counters that they can use to help complete the problems if they cannot do them without manipulatives.

- Informal assessment will be made by teacher walking around and checking each student's answers. The teacher will also verbally interact with students asking them to explain what they are doing to make sure they understand the concept of subtraction.
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Extension: More advanced students can check their work with a calculator. If time permits allow students to visit these internet learning sites.

For enrichment students will try the interactive addition and subtraction games. These vary in difficulty.

http://www.ictgames.com/save_the_whale_v4.html Save the Whale by adding
http://www.aaaknow.com/g13b1_x1.htm A counting by 2's quiz (needs reader assistance)
<http://www.aaaknow.com/equ18dx2.htm> One digit subtraction (needs reader assistance)
http://www.nasa.gov/audience/forkids/kidsclub/flash/games/levelthree/KC_Blast_Off.html
 NASA addition blast off
<http://www.bbc.co.uk/schools/laac/numbers/ch2.shtml> Little Animal Activity Centre (British)
<http://www.arcademicskillbuilders.com/games/alien/alien.html> Alien addition - timed and tough!

Assessment: The students can be given the same problems for pre and post assessment.

Additional products on TeachersPayTeachers

<http://www.teacherspayteachers.com/Product/Scripts-Noah-package-5-scripts-one-PowerPoint-291959>

FREEBIE: Scripts about NOAH How would you like to present the story of Noah? Take your choice with this packet of skits.

If Noah Built the Ark Today is a comedy version of what life was like cooped up with teenaged sons. The Atheist, the Christian and Noah is a two character, two scene skit providing scientific evidence about the feasibility of housing the animals. Versions for three story tellers (plus three minor characters and extras), choral reading/Greek chorus (with accompanying PowerPoint) and reader's theater (with lesson plan ideas and a rubric) complete the set. Also included are links to online games and other scripts. Zipped file contains both .pdf and .doc versions.

<http://www.foolsforchrist.net/novel-studies.html>

FREEBIE: LION, WITCH & WARDROBE Save time and energy by using this graphics enhanced 49 slide Power Point novel study and 12 reproducible .PDFs in a ZIP file. Included are comprehension and journaling questions by chapter, projects for writing, drama, artistic and other media, links to free internet review games, kinesthetic and vocabulary activities, editing practice and a background slide on the evacuation of children during WW2.

Graphics help students visualize. Links to free online review games are included. Additional Power Point novel studies available for Magician's Nephew, A Horse and His Boy

Subtraction Assessment

$$\begin{array}{r} 4 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

Animal Subtraction Worksheet

$$\begin{array}{r} 5 \\ - 1 \\ \hline \end{array}$$



$$\begin{array}{r} 4 \\ - 2 \\ \hline \end{array}$$



$$\begin{array}{r} 4 \\ - 3 \\ \hline \end{array}$$

