

2003 National Teacher Training Institute

Grade K

One, Two Jumping Fish

Master Teacher

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Time Allotment

30-40 minutes

Overview

Prior to using this lesson students should be able to count by 1's, 2's, and 5's. This lesson can be used as a culminating or review activity. The video shows students using different ways to count and mark numbers. Students use concrete objects to count by 1's, 2's, 5's, and to combine sets to make sums. After the video the students can access the Web site to count and match items and to count by 1's and 5's.

Differentiation of Instruction

This lesson was written for trainable students with vision impairments. This lesson can be used in a regular classroom. The video is captioned for hearing impaired students. The Web sites can be used by students or in teacher-led activities.


Activities for this lesson are based on guidelines from SC Curriculum Standards Implementation Guide, Chapter Four, pages 7-8, 19. Differentiation of Instruction (<http://www.myschools.com/offices/cso/SIG/k5.htm>) modifications for special needs students are included in the lesson plan. The modifications support the achievement of the selected standards.



Subject Matter

Math

Learning Objectives

Students will be able to:

 Count by 1's, 2's, and 5's;

-  Create sets of 2's and sets of 5's;
-  Combine sets to find sums.

South Carolina Standards

(These Standards are available online at <http://www.myschools.com/Offices/CSO/>.)
K. I. a. count with understanding and recognize "how many" in sets of objects

Media Components

Video

Math Monsters, Lesson 10, "Counting and Symbolizing," is a lively video where four monsters take an inventory at a pet store.

Web Sites

Funbrain

(<http://www.funbrain.com/index.html>)
This site will be used as a follow-up activity. The site has different math games with different levels from easy to hard. The games listed below are used in this lesson.

Bunny Count

(<http://www.funbrain.com/count/index.html>) has students counting either characters or numbers.

Connect the Dot-Count by Ones

(<http://www.funbrain.com/cgi-bin/dots.cgi?A1=s&A2=2&A4=0>)

Connect the Dot-Count by Fives

(<http://www.funbrain.com/cgi-bin/dots.cgi?A1=s&A2=3&A4=1>)

These last two sites have students counting by 1's or 5's to make a picture.

Materials

Per student:

10 colored blocks (3 red, 4 blue, 3 green)
Activity Sheet 1: Counting Fish
Activity Sheet 2: Fish Bowl

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a set of 4 different coloring tools
for each team of 2 students
scissors

(**Note to Teacher:** You must create the two activity sheets.)

Equipment

TV
VCR
computers

Adapting NTTI Strategies for Deaf/Hard of Hearing and/or Visually-Impaired Students

Adapting Video

- ✎ Closed captioned and total communication for deaf students
 - Interpret (sign) closed-captioned video to provide total communication for deaf students.
 - Use visual communication to enhance understanding of the video scenes for students not reading at the vocabulary level of the captions.
 - Signing over narration helps students focus when an emphasis on certain information is needed.
- ✎ PAUSE strategy and closed captioned
 - When using closed captioned, pausing the video can cause the loss of 1-3 sentences of closed captioned as the pause is released and the video begins to play at the pause point. Suggestions for modifying the PAUSE strategy:
 - The teacher may need to rewind after the pause and then begin to play the video.
 - Play closed captioned in longer segments and provide a video guide

sheet with the **Focus for Media Interaction**.

- Play the video segments through from the beginning point to the ending point. The **Focus for Media Interaction** would be given at the beginning. Tell the students that they will watch the entire segment, and then watch it again, pausing for them to answer the focus task for each segment. Tell them some of the caption is lost at pause points, read carefully the first time.
 - ✎ Non-captioned video
 - Prepare to interpret (sign) the video for deaf students.
 - Arrange for a qualified interpreter to sign the video. Plan the lesson in advance to allow time for this arrangement.
 - ✎ Screen size for visually-impaired students
 - Use a projection device with the VCR to project the video to a large screen.
 - Allow students to sit close to TV or large screen.
 - Determine how the students can touch the TV screen, if not by hand, then with a pointer (yardstick). Provide an opportunity for the visually-impaired student to touch or trace images if touch would enhance the learning.
- ### Adapting Web Sites
- ✎ Web sites with audio
 - Provide an interpreter for each hearing-impaired student.
 - Use with small groups with teacher interpreting and guiding the activity.
 - Direct students to alternate text files for the video/audio if available.

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- ✎ Screen size for visually-impaired students
 - Use a projection device with the computer to project to a large screen.
 - Allow students to sit close to computer screen or projector screen.
 - Determine how the students can touch the screen, if not by hand, then with a pointer (yardstick). Provide an opportunity for the visually-impaired student to touch or trace images if touch would enhance the learning.
- ✎ Web sites with total communication for the blind
 - Use sites encoded with Braille.
 - Use sites with audio.
 - Use sites that are easily read by text reader software. (Page is formatted from left to right allowing tab or arrow keys to move the reader through the text and images. Images have alternate text that identifies the image in relation to the text on the page.)

Prep for Teachers

- ✎ Preview and cue video.
- ✎ Preview and bookmark Web sites.
- ✎ Prepare the two activity sheets and collect all the materials.
 - Cut a bowl shape out of white paper.
 - Draw fish shapes on white paper and copy the number needed.
- ✎ When using media, provide students with a **Focus for Media Interaction**, a specific task to complete and /or information to identify during or after

viewing of video segments, Web sites, or other multimedia elements.

Introductory Activity

Step 1: Introduce the students to the vocabulary terms for this unit. Write the words *inventory*, *count*, *all together*, and *exactly* on the board. Discuss all the words but *inventory*. To make sure the students understand the word meanings, tell them to count the fingers, not the thumb on one hand. Then ask them to count the fingers and thumb. Ask the students: All together how many fingers do you have? Ask exactly how many thumbs do you have all together counting on both hands. Remind the students to listen for these words in the video.

Step 2: Discuss the word *inventory* and demonstrate taking an inventory by identifying and counting the items on your desk. Have the students identify and count the items in their desks. Have the students define the word *inventory*. Accept all answers.

Step 3: Tell the students that they are going to watch a video about four math monsters named Addison (+), Mina (-), Split (\div) and Multiplex (X). In this video the monsters are going to take an inventory by counting fish.

Learning Activities

Step 1: To provide students with a **Focus for Media Interaction**, ask them to raise their hands each time they hear the words *inventory* and *count*. PLAY the video at the point where the monsters are standing in a kitchen singing the song, "Everybody counts. Everybody counts. Counting-." PAUSE the video after Split says, "What can we do to make it easier?" A large question mark will appear. Ask the students how they would count the fish? (*Answer: count by 1's, count by color*) Ask the

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students if counting is taking an inventory.
(Answer: yes)

Step 2: To provide students with a **Focus for Media Interaction**, tell them to help the monsters count the fish and notice how the monsters are counting the fish. RESTART the video at the pause point. STOP the video when one monster asks, “How many is that?” A sheet with “?”s” all over it will appear. Give each student 2 red, 3 blue, and 2 green colored blocks. Have the students put the blocks in rows by color. The students count their blocks. Have the students tell you their total (how many they have all together) and put the number(s) on the board.

Step 3: RESTART the video at the pause point. As soon as the answer is given on the video, pause the video again. The screen shows Split standing and she gives the answer of seven. Have the students check their answers with the one Split gave.
(Answer: 7)

Step 4: RESTART the video at the pause point. Addison says, “Hey, that is a great way to count fish.” STOP the video when Split wonders if there is another way to count the fish. A moving question mark will appear. Ask the students how they would count the fish a different way.

Step 5: To provide students with a **Focus on the Media Interaction**, ask them, “Are there other ways to mark (inventory) the fish they are counting?” RESTART the video at the pause point. When Multiplex wonders how they can count the jumping fish, STOP the video. Multiplex is staring at the fish tank of jumping fish. Repeat the focus question. (Answer: marks, checks) Have the students show different ways to mark numbers (take inventory) on the board.

Step 6: Ask the students, “Are there other ways to count?” Talk about counting by groups/sets of 2’s and 5’s. Give each student 3 more blocks. Have the students group the blocks in sets of 2’s and then count the sets. Have the students group the blocks in sets of 5’s and then count the sets.

Step 7: To provide students with a **Focus for Media Interaction**, direct them to watch how the monsters count the jumping fish. PLAY the video at the stop point. PAUSE when the monsters are counting by 2’s. Two monsters are blowing their whistles at this point. Check to see that the students noticed the monster counting by 2’s.

Step 8: RESTART the video. To provide students with a **Focus for Media Interaction**, direct them to watch how the monsters count the jumping fish. PAUSE again when the monsters count by 5’s. Five whistles are blown at this point. Check again to see if the students saw the monsters counting by 5’s.

Step 9: RESTART the video. PAUSE the video when a white sheet of paper appears with marks on it. The monsters have just finished counting all the jumping fish. Have different students come up to the screen and count the marks on the screen. When all students have finished counting, STOP the video.

Culminating Activity **Counting Fish Activity**

Step 1: Give each student copies of Activity Sheets 1 and 2, and a set of coloring tools and scissors.

Step 2: Have the students color the fish using 4 different colors and then cut out their fish.

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Step 3: With a partner, the students will combine the fish and put some in each of their own bowls.

Step 4: Have the students count the fish by 1's and check each other's answers.

Step 5: Have the students count the fish by 2's and check each other's answers.

Step 6: Have the students combine groups of 2's plus 1 and count the fish by 5's. Have them check each other's answers.

(Note to Teacher: Observe and check the numbers.)

Step 7: Direct students to the FunBrain Web site (<http://www.funbrain.com/index.html>). On the Home Page, you need to click on the link "6 & under" and then click on the link "Math Games." A list will appear of the different games on the Web site. Scroll down to Bunny Count and Connect the Dot. Access each game on an equal number of computers. The students can take turns at each game. You should demonstrate how each game is played before the students begin to play.

To provide students with a **Focus for Media Interaction**, direct the students to play Bunny Count and count and match the

items. Or they can play Connect the Dots where the students count by 1's and 5's.

Cross-Curricular Extensions

Language Arts: Read a book about counting to the students. Here are some examples:


Thomas the Tank Engine Counts to Ten by Rev. W. Awdry, Random House


The Very Hungry Caterpillar Board Book by Eric Carle, Philomel Books

Physical Education: The students could count how many times they do sets of an activity such as set up's.

At lunch the students could count sets of silverware, plates, and items on the table.

Community Connections

 Take the students on a field trip to a grocery store. Ask the store manager to explain why and how he takes an inventory in the store. Ask the manager to demonstrate taking an inventory for the students.

 On a field trip or as they line up to go somewhere in the building, the students could count many different items. They could count how many boys, girls, sets of feet, sets of hands, etc.