## Bear Time

Summary
The activities in this lesson will help students identify relationships among whole numbers up to 100.
Main Core Tie
Mathematics Grade 1
Strand: NUMBER AND OPERATIONS IN BASE TEN (1.NBT) Standard 1.NBT. 3

## Additional Core Ties

Mathematics Grade 1
Strand: NUMBER AND OPERATIONS IN BASE TEN (1.NBT) Standard 1.NBT. 2
Group Size
Large Groups
Materials
Invitation to Learn

- Number Crew: Dancing Bear Video

Hidden Animals

- Hiding Animals

Hundreds board pocket chart

- Bear Squeeze

Bear Squeeze

- More or Less
- Hundreds Board

Scissors
Glue
Tape

- Bear Squeeze

Teddy bear counters
Additional Resources
Books
More or Less, by Stuart J. Murphy; ISBN 0-06-053167-3
100 Days of Cool, by Stuart J. Murphy; ISBN 978-0-06-000123-0
Media
Number Crew: Dancing Bear, www.uen.org/dms (emedia is available following login)

## Background for Teachers

Before starting these activities, students need to be able to count to 100 and understand vocabulary terms such as greater than, less than, equal to, more, and less. Previous exposure to a hundreds chart would be helpful.
An important component in any good lesson is student engagement. To encourage this, the cooperative learning strategy, Think-Pair-Share, has been incorporated. Think-Pair-Share begins with the teacher posing a question or task and each student thinking about or working on it individually. Then the students turn to a partner and share their thinking. Their answers then can be shared with the whole group or a dyad can be formed to discuss further. Thoughtful and intentional pairing will
provide avenues for effective differentiation.

## Intended Learning Outcomes

5. Understand and use basic concepts and skills.

## Instructional Procedures

Invitation to Learn
Begin by watching, Number Crew: Dancing Bear. During viewing, have students Think-Pair-Share during the discussion sections in the film about what room the number crew should visit.
Instructional Procedures
Hidden Animals
Before beginning, hide the animals, from Hiding Animals, behind certain numbers on the hundreds chart. You will need to decide before each round which animal you are going to help guide them to find.
Have students join you on the rug and explain that they are going to help find the animals hiding on
Call on a student to pick a number. Based on what animal you want them to find, move the Bear Squeeze accordingly.
Keep calling on students to pick a number, moving the bears to help them narrow down what number the animal is hiding behind.
As the students get closer to narrowing down the number have them Think-Pair-Share what the possible solutions are.
Keep playing until the animal has been found.
Repeat until all animals have been found.
Bear Squeeze
Read the story, More or Less, stopping throughout to have students figure out the possible number solutions based from the questions that Eddie asks. (You may want to list the numbers on the whiteboard and mark them off to help students keep track.)
Give each student a cardstock copy of the Hundreds Board.
Have them cut off the extra paper at the top, bottom, and right side of the chart.
Next, have students glue the Hundreds Board so that the number 10 and 11 match up and 20 and 21 and so on. It will form a cylinder.
Have students cut on the solid lines under each row of numbers, starting at one.
Put up the number line on the board and have students join you on the rug.
Explain to students that you are thinking of a number on the number line, a mystery number, and their job is to find it by asking questions similar to the ones Eddie asked in the book.
Call on a student to ask a question about the number.
Use the Bear Squeeze bears to show if the number is more or less than the number the student asked about.
As students get closer to the number, list on the board the possible solutions left and cross off as you play.
Continue playing until students have found the mystery number.
Repeat the game as long as there is student interest.
Pair up students to play Bear Squeeze in partners.
In their math journals, have students record their mystery number and have them track with tally marks how many questions it takes for the number to be found. Then using teddy bear counters and their paper number line have students ask their partner questions until they have found the mystery number.
Have students take turns and play each role at least twice.

When finished playing, have students write in their journals about what they have learned from playing Bear Squeeze.

## Extensions

Curriculum Extensions/Adaptations/ Integration
As a class, give clues for a specific number. (For example: "More than 30 ; less than 40 ; more
than 31 ; less than 37 ; the digits add to five.) Give the class the first two clues and have them write down all the possible numbers in their journal. One by one, give the other clues. Have each student cross out numbers that are no longer possible until they find the secret number.
To simplify the Bear Squeeze game use a number line that only goes from 0-20.
Give half of the students a number and create a human number line. On sentence strips, write things like greater than eight, less than ten, and greater than two and less than six. Then have the students in the number line step forward if they meet the criteria on the sentence strip. Have the other half of the class try and figure out what the sentence strip stated by analyzing what numbers stepped forward.

## Family Connections

Send home the Mystery Number-Clue Sheet to have students write their own clues for a mystery number to present to the class.
Send home the Bear Squeeze bears and a paper number line and have students play at home with family members.

## Assessment Plan

Informal observations can be made during the discussion of the Dancing Bear video.
Divide the class into groups of three or four students and have them solve mystery numbers following clues that are given. An example set of clues could be: More than 30; less than 40; more than 32 ; less than 37 ; the digits add to 8 . Give each group a different set of clues and have them work together to solve the mystery number.
Observe while students play the Bear Squeeze in partners and make note of individual student understanding or misconceptions.
Evaluate their math journal entry, from the Bear Squeeze, to check for understanding and use of vocabulary like more, less, greater than, less than, equal to, etc. Refer to Bear Squeeze Checklist to help evaluating journals.

## Bibliography

Research Basis
Tomlinson, C. (September 2000). Reconcilable differences? Standards-based teaching and differentiation. Educational Leadership. 58(1)6-11.
Differentiated instruction involves teachers planning instruction based on student characteristics. This can be the student's readiness, interest, and/or learning profile. Differentiation also involves modifying the content, the process, or the product. By modifying instruction in these ways, students will all be exposed to the curriculum, but in ways that better meet their individual needs.
Lyman Jr., F. \& McTighe, J. (April 1988). Cueing thinking in the classroom: The promise of theoryembedded tools. Educational Leadership. 45(7)18-24.
Using the cooperative learning technique, Think-Pair-Share, allows students the opportunity to have time to think in a less competitive environment. It also lets the teacher cue student thinking through appropriate questioning and can improve student achievement and attitude.

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