Grade 2: Reading/Interpreting/Creating a Venn Diagram

Purpose:

* To discover how to visually represent comparing/contrasting with a Venn diagram
* To understand how to read a Venn diagram
* To create a Venn diagram, given a set of shapes to sort
* To verbally explain what a Venn diagram is used for

Ignition: Mystery Bag of Marbles Riddle (not directly related to lesson)

Prepare a mystery bag of marbles (3 blue, 6 yellow). Place sealed bag under Epson projector with three clues written beside it. Reveal clues one at a time:

1. There are yellow and blue marbles.
2. There are less than 12 marbles (students discuss possibilities, teacher records them on the board). Point out that 12 and 0 won’t work.
3. There are more yellow than blue marbles. Cross out options that no longer work.
4. There are twice the yellow marbles than blue. Students discuss reasoning and the concept of twice as many.

Bridge to the Learning

Vocabulary

* Sort
* Compare
* Contrast
* Visual representation
* Venn diagram

Give each student a pile of pattern blocks. Put up the following directions/questions on projector. Give students 5 minutes to sort.

Questions/Directions (display):

* Show one way to sort your blocks.
* Is there another way to sort them?
* Show as many ways as you can think of to sort your pattern blocks.
* Be ready to talk about how you sorted your blocks.

Gradual Release

I Do: (5 mins. -display blank Venn on screen)

Today we are going to learn how to sort information on a diagram. This is called a Venn diagram. What do you notice about the Venn diagram? Tell someone sitting next to you what you notice.

I can use a Venn to compare and contrast two things. For example, I can compare Candy and Vegetables. (fill in headings on Venn).

What are some things that are the same about candy and vegetables? (list in middle of diagram)

What are some things that are true only for candy? vegetables? (continue to fill in diagram)

Now I can read the Venn diagram, sort of like we read a book. When I read a Venn diagram, I look at each portion of the diagram and I can say a statement about it…

* Both candy and vegetables are items we eat
* Both candy and vegetables come in a variety of different types, colors, etc.
* Only vegetables are healthy, grow in the ground, etc.
* Only candy can cause cavities, is high in sugar, is low on nutrition, etc.

We Do: (5 mins.)

Remember when you sorted shapes at the beginning of class today? Let’s use our Venn diagram to compare and contrast the shapes. (provide Venn on screen with several moveable shapes off to the side)

First, we need headings. Let’s sort our shapes by the number of sides and color. (Label the left side “4 sides,” and the right side, “Red.”)

Guide students as they come up one at a time to slide a shape to its appropriate spot on the Venn. Encourage verbal explanations by asking students to tell where they are moving their shape and why.

You Do: (15 mins.)

Provide small groups with 2 overlapping hula hoops and a pile of shapes. Give each group two notecards for Venn headings and ask them to:

1. Decide how to sort and label each side using the notecards.
2. Sort the shapes according to the headings on the Venn.

Debrief (5-10 mins.)

Provide students with a blank Venn handout. Ask them to record the results of their hula hoop sort.