

SORTING CIRCLES & VENN DIAGRAMS

For this activity, you will need:

- A set of Attribute Blocks for each group of students
- 2 Sorting Circles for each group of students
- OR 2 large pieces of string, tied to form a loop for each group of students
- Space for each group of students to spread out their sorting circles and Attribute Blocks
- Index cards or sticky notes

1. Separate students into small groups, and provide each group with a set of attribute blocks and a pair of sorting circles.
2. Have students use index cards or sticky notes to label the sorting circles as “Red” and “Blue.”
3. Students should then “put on their sorting hats” to find attribute block pieces that fit the description of each label, placing attribute blocks in the appropriate sorting circle.
4. After students have sorted “Red” and “Blue,” ask what other differences they notice about the attribute blocks that they could use as sorting rules, and practice sorting according to some of the characteristics that they identify. At first, limit the sorting labels to characteristics that are mutually exclusive so that a piece won’t match both descriptions. For example:
 - a. Yellow and Red
 - b. Thick and Thin
 - c. Big and Small
 - d. Rectangle and Circle
 - e. Triangle and Square
 - f. Even Number of Sides and Odd Number of Sides
 - g. 4 “Corners” (Vertices) and 3 “Corners”
 - h. “Curved Edges” and “Straight Edges”
 - i. Symmetric and Not Symmetric
5. When students are ready to begin working with Venn diagrams, introduce the idea by having them complete the “Putting Our Heads Together” activity.
6. Discuss and reflect upon “Putting Our Heads Together” to solidify student understanding of each region of the overlapping circles.
7. Then, have students set up their sorting circles again (as two separate, non-overlapping circles).
8. Tell students to “put on their sorting hats” and have them label the sorting circles “Red” and “Triangle.”

9. As they are finding attribute blocks to go in the circles, wait for students to ask in which circle they should put a red triangle. When they ask, ask what they think they should do.
10. Guide students to the idea of having the circles overlap, as they did in the “Putting Our Heads Together” activity.
11. Have students move the sorting circles so that there is an overlapping region, and discuss the meaning of each region.
12. Then instruct students to continue their sorting to find shapes that belong in each region.
13. Re-label the sorting circles with different characteristics, and have students sort shapes according to the new labels. For example:
 - a. Thin and Circle
 - b. Small and Blue
 - c. Rectangle and Large
 - d. 4 Sides and Square
 - e. 6 Sides and Square
 - f. 3 Corners/Vertices and Triangle
14. If students are ready, introduce the idea of having 3 overlapping sorting circles, and discuss the meaning of each region if the circles are labeled as “Yellow,” “Thick,” and “Hexagon.”
15. Have students practice sorting with three overlapping labels:
 - a. Thin and Red and Square
 - b. 4 Sides and Large and Blue
 - c. 3 Sides and Triangle and Thin
 - d. 4 Sides and Square and Large
16. As students complete each sort, reflect upon and summarize the final sorting to clarify main ideas, such as:
 - a. Color, size, thickness, and orientation are not defining characteristics of shapes.
 - b. Defining characteristics of various shapes.
17. As a challenge, have students use 2 sorting circles to sort:
 - a. Triangle and Square (Nothing in the intersection. A triangle cannot also be a square.)
 - b. Hexagon and Square (Nothing in the intersection. A hexagon cannot also be a square.)
 - c. Rectangle and Square (Squares all are in the intersection. Squares are special rectangles with all four sides equal.)

SORTING CIRCLES & VENN DIAGRAMS – English Language Arts

For this activity, you will need:

- Copies of Venn diagram paper for student groups
- Word Set cards (1 set per student group)

1. Have each group cut apart cards from Word Set A.
2. Ask students to read the words with their groups and to discuss how they might sort the words into two groups.
3. After discussing, instruct students to label one circle on the Venn Diagram (separate circles) sheet as “Colors” and the other as “Clothing.”
4. Have students sort the words from Set A into the two circles.
5. Repeat the process with each Set of words:
 - a. Set A: Colors and Clothing
 - b. Set B: Nouns and Verbs
 - c. Set C: Singular and Plural (may need to switch to overlapping circles since “fish” could be singular and plural)
 - d. Set D: Nouns and Verbs (need overlapping circles since some words have multiple meanings)
 - e. Set E: -ing words and –all words OR Nouns and Verbs
6. Other Language Arts Venn Diagram activities:
 - a. Read two stories in class. Then, use a Venn diagram to compare and contrast the stories in a class discussion.
 - b.

WORD SET A

red

shoe

shirt

hat

blue

skirt

pants

sock

yellow

pink

dress

purple

glove

green

scarf

black

jacket

brown

WORD SET B

run

dog

girl

jump

boy

cup

hat

shoe

flip

house

see

turn

say

go

play

car

eat

fan

WORD SET C

feet

dog

girl

children

boy

cup

hat

shoe

mice

house

teeth

square

fish

fingers

triangles

car

stars

fan

WORD SET D

block

dog

throw

sink

step

cup

hat

fire

write

fall

teeth

ball

fish

sing

find

cut

start

lasso

WORD SET E

ball

fall

ring

wing

sting

string

bring

call

fall

mall

hall

wall

spring

fling

king

swing

tall

thing