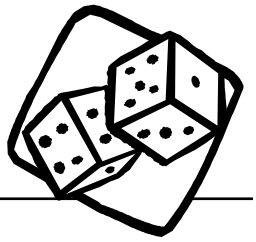
Loopy Lines

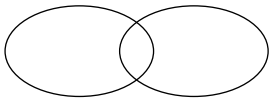


Sort objects using one or two attributes.

What you need

A variety of small toys and objects
Two 36-inch long pieces of yarn tied into loops
Eight Post-It Notes™ labeled: red, black, green, blue, white, animal, person, object, pretend, real-life
Several blank Post-It Notes™

What to do



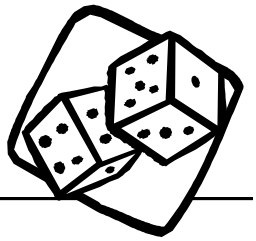
1. Place two of the loops so they overlap slightly.
2. Read the story to set up the activity:
   Derrek needs to sort his toys and put them away before he can go out to play. He needs help to organize them in two ways to put into two toy boxes. Help him sort his toys quickly so he can play!
3. Look at the toys and choose two categories listed on the Post-It Notes™ or create your own categories.
4. Place one Post-It Note inside each of the loops.
5. Sort the toys into the two loops following the rules on the labels.
6. For instance, if the player labels one loop blue and the other one red, then toys that have red on them go inside the red labeled loop and toys that have blue on them go inside the blue labeled loop.
7. Toys with both colors are placed in the overlap in the middle so the toy is in both loops.
8. Toys with neither color go outside both of the loops.

What to ask

- Why did you choose those two categories?
- Why does that toy go inside that loop/both loops/neither loop?
- How many toys are inside just one loop/both loops/neither loop?
- What attribute would apply to all the toys?
- What attribute would not apply to any of the toys?

Did you know?

To children the classification of objects is not an easy task. Adults use their ability to classify when deciding how to organize the kitchen cabinets, refrigerator, garage or closet. Making our choices known to our children as we sort things in this way will help them with classification and understanding how to sort objects.



What's next?

- An extension of the game is to have a mystery category: One player chooses a secret attribute and places an object with that attribute inside an unlabeled loop. The player continues to add more objects that match that attribute. The other players guess at the attribute. Whoever guesses it starts the next round.
- Add a third loop to the diagram. How does this affect the ease to sort the objects?

To learn more

The Magic School Bus Liz Looks Sorts It Out

by Joanna Cole

When Arnold and Koesha try to organize Arnold's rock collection, they can't agree on the best way to sort the rocks. Liz comes up with a rock-solid solution that makes everyone proud.

3 Little Firefighters

by Stuart J. Murphy

Three young firefighters must find matching sets of buttons to complete their costumes for a parade, but should they sort them by shape, color or size?

How it helps with school

Texas PreKindergarten Curriculum Guidelines
Classification and Data Collection

Texas Essential Knowledge and Skills (TEKS) Standards
Probability and Statistics: K.8C, K.12A-B; 1.9A-B; 2.11A-B
Underlying Processes and Mathematical Tools: K.15; 1.13; 2.14

National Council of Teachers of Mathematics (NCTM) Standards
Data Analysis and Probability, Reasoning and Proof, Communication

Activity inspired by Elementary and Middle School Mathematics, John A. Van de Walle, (2001)