

Geology

Mathematics Area

Activity – Creating Sets Using Rocks

Materials:

A tray containing:

- 1 basket holding (10) coffee can lids
- 1 basket holding (45) small polished rocks
- 1 control strip

- Table mat

Preparation:

Cut out 10 orange circles from colored paper that will be glued onto the coffee can lids.

Using a permanent black pen, start to number the circles in the center, using the numerals 0 - 9.

Using a permanent black pen, place small x's to indicate where a rock should be placed (you should have 4 x's spaced throughout the #4 circle).

Using an invisible glue stick, glue each circle to a coffee can lid underneath the lid (colored paper circle is under the lid and you can see the number and the x's).

Cut a piece of white paper into a 1" x 10" strip. Using a permanent black pen, divide the strip into 1" units. Start to place numbers in the boxes by placing a "0" in the first box and ending with "9".

Presentation:

1. Invite the child or group of children.
2. Take a table mat and place it on a table.
3. Go over to where the tray is kept and take it to a table.
4. Invite the child to carry the tray over to the table.
5. Place the tray at the top left hand corner of the table.
6. Take out the basket with the coffee can lids and place it to the right of the tray.
7. Take the other basket that holds the polished rocks and place it below the basket with the lids.

8. Take the control strip and place it to the right of the baskets.
9. Take the lids out of the basket and place them in a horizontal line starting under the basket of polished rocks. Use the control strip to help you place the lids correctly left to right.
10. Point to the center of the first lid and say “zero”.
11. Point to the center of the next lid and say “one”. Select one rock from the basket and place it on the **x**.
12. Continue with step #11 until all the rocks have been placed.
13. Admire your work.
14. Return the polished rocks starting with the first one on the left and ending with the rocks on the “9” lid. Point to the center of each lid as you say the number and then pick-up each rock in turn while counting them back into the basket.
15. Return the basket with the polished rocks back onto the tray.
16. Return the lids to the basket, starting with the “0” and moving left to right.
17. Return the basket of lids to the tray.
18. Return the control strip to the tray.
19. Return the tray to the shelf where it belongs.
20. Replace your table mat as you have been shown to its appropriate place.
21. Invite a child.

Variations and Extensions:

1. Don't use a control card
2. Don't mark **x**'s on the lids

Points of Interest:

1. Seeing matches that are not identical

Control of Error:

1. Don't have enough rocks
2. **X**'s without rocks on them

Aims:

Eye hand coordination, one to one correspondence, creating sets, beauty of the polished rocks, order, etc.

Age: 3 and up

Language: Numerals "0" through "9", sets, etc.



Counting Rocks