LESSON 14:
PATTERN BRACLETS

SUPPLIES

MAIN BIN

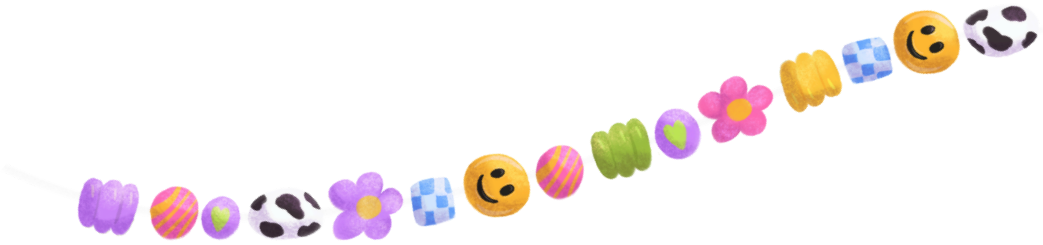
- String (one roll)
- Wooden Beads (100)
- Masking Tape (1 roll)

PENCIL BOX

- Markers

TIP:

Help students tape one end of the string to the table so the beads don't slide off while they're working. When they're done, assist them in tying a knot at the end of the string to keep the beads secure.



OBJECTIVES

- ☑ Explain how wax resists water-based paint and why the crayon marks stay visible.
- ☑ Use a scientific process (hypothesis, test, observe) to explore invisible ink.

HOOK

3-5 min

Ask students:

- Have you ever seen a pattern on your clothes or toys?"
- What do you think comes next in a pattern like red, yellow, red, yellow…?
- What kind of pattern would you make if you were designing a bracelet?

INTRODUCTION

3-5 min

When we use colors in a pattern—like red, blue, red, blue—we're not just decorating. We're using color as a tool to communicate information. Repeating colors help our brains recognize a pattern, which is how we learn to predict, organize, and make sense of things.

Color patterns also activate both the creative side and the logical side of the brain. Children get to choose and combine colors in artistic ways, while also practicing early math concepts like sequencing and repetition.

PATTERN BRACLETS

DISCUSSION

3-5 min

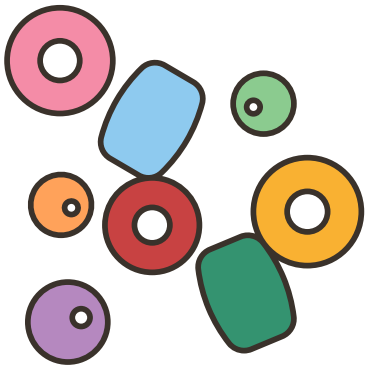
Using their ideas from the hook, have students predict:

- I think if I use red, yellow, red, yellow, the next color will be...

EXPERIMENT

20-25 min

1. Give each student 8-10 wooden beads, markers and a piece of string.
2. Have the students color there beads with 2-3 different colors.
3. Assist students in placing the first bead on there string and helping them tie a knot or tape the first bead in place
4. Have students place there beads on there string reminding them about patterns. Assist them tying off the strong to create a bracelet



MOVEMENT BREAK

Scientific Freeze Tag

Play a game of freeze tag with a scientific twist. Designate one child as the "scientist" who tags the other kids. When tagged, the kids have to freeze in place like their favorite scientific phenomenon element, planet, or animal (e.g. volcano eruption, tornado spinning, seed sprouting or bubbly chemical reaction). To unfreeze, another child needs to come "zap" them gently on the shoulder. This game gets kids moving while also reinforcing the importance of scientific knowledge and creativity.

PATTERN BRACLETS

OBSERVE & EXPLAIN 5 min

Scientists always watch closely during experiments. Let's use our science eyes and describe what we see, notice, and wonder

- What colors are you using?
- What do you see repeating?
- What color do you think comes next?

EXTENSION

If there is extra time and materials, the class can repeat the experiment with more or less of the following variables:

- Ask a student to create the start of a pattern (e.g., red, red, blue, red, red…) and have a friend figure out what comes next.
- Can you make a tiny bracelet or necklace for a classroom friend or toy?

When we made our bracelets, we used colors that repeat in a certain order. That's called a pattern! A pattern is something that happens again and again—like red, blue, red, blue. Your brain sees the order and starts to guess what comes next. That's called predicting, and it's something scientists and mathematicians do all the time!

Patterns are important because they help us make sense of the world. You see patterns in music, clothes, nature—even in the days of the week! By choosing and repeating colors, you made a color code with your beads. That's like solving a puzzle or writing a secret message with color!

It might feel like art, but it's also math and science. You used your eyes and your thinking skills to build something that follows a rule—and you even practiced being a designer!

Exit Ticket

Ask each student the following questions as they walk out the door.

What colors or shapes did you use to make your pattern?
Can you tell me the order of your pattern? (e.g., "blue, red, blue, red")
How do you know it's a pattern?

CLEAN UP & DISMISSAL

Students must then clean their workspace. Make sure to leave the classroom the way you found it.

- Make sure all beads are picked up from tables and the floor so none are left behind.
- Collect any leftover beads and return them to their containers.
- Gather all string, scissors, and other materials and place them in the supply bin.
- Have students throw away any scraps or broken materials.
- Wipe down tables with a damp cloth to clear away any bead dust or mess.
  - Remind students to wash their hands after cleaning up.