





YOUR MISSION:

Spotting tricky patterns and cracking secret codes is the only way to solve some of the oddest cases that land at Odd Squad Headquarters, and now it's training time for agents everywhere. Only with careful practice can agents hone their pattern-sleuthing skills to put things right every time—and potentially become a Patternista like their fearless leader, Ms. O.

LEARNING GOALS:

• Identify and extend color, picture, sound or number patterns.

MATERIALS:

- Scratch paper and pencils
- Handout: Odd Pattern Sheet
- Optional: Colored markers/crayons for each child
- A plain manila folder to use as the case file. You can attach the <u>Odd Squad seal</u> (included in this packet) to the front and put the activity pages inside.

PREPARATION:

- Find the Odd Squad episode **Totally Odd Squad** (approx. 11 minutes) online at pbskids.org/learn/oddsquad/afterschool.
- Prepare your case file.













IMPLEMENTING THE ACTIVITY:

- Help the children settle down by completing a fun, focusing task that explores patterns. Ask them to follow you as you
 do a series of silly movements in a pattern: Jump, clap, funny face, clap / jump, clap, funny face, clap / etc.
- Once the children are focused, view Totally Odd Squad with the group. Before you begin, ask them to pay attention to
 ways that the agents spot patterns. After you watch, ask: How did the agents spot patterns? (They looked for sequences
 that repeated.)
- Tell the children that you've received a letter from the head of Odd Squad, Ms. O. Explain: The Odd Squad needs our help.
 Are you ready to help crack a math case? Read the letter from Ms. O aloud (below).
- Engage the children in Training and Casework, then celebrate with a Case Closed learning recap (following pages).

Letter from Ms. O

Agents! So glad you're here. I have a little story for you. A long time ago when I joined the squad, I was a regular agent just like you. But one thing helped me really shine: cracking codes. I could figure out codes in my sleep, blindfolded, even hanging upside down. A lot of the time, the codes I broke were patterns—a series of numbers, colors, even sounds that repeat. I was SO good at seeing patterns that they started calling me. The Patternistal But now that I'm busy rupping thing



started calling me... the Patternista! But now that I'm busy running things around here, I need to make sure ALL agents are at the top of their pattern game. The best way to do this is to get INSIDE THE MIND of a pattern-maker, so it's time for some training. You are all going to practice being pattern-making villains and code-cracking agents. By the time you're done, you'll be on your way to becoming a Patternista, too. So, are you ready? Then hurry, because Odd Squad needs you!

TRAINING:

- 1. Tell the children that in order to become a Patternista, they need to practice making and solving patterns. Explain: Before we can make patterns, we have to make sure we can see and crack them ourselves. Now remember, patterns can be sounds, colors, numbers, figures...any group of things that repeat. I'm going to create a number pattern on the board. It's time to be a pattern detective: first, spot the pattern and then fill in the blanks.
- 2. On the board, draw a shape pattern: circle, square, triangle / circle, square, triangle / circle, square, _____
- 3. Give the children some time to turn and talk to their neighbors to try to figure out the pattern.

continued











TRAINING CONTINUED:

- 4. Ask the children to describe the pattern in their own words and then to fill in the blanks. Say: Excellent work, agents. This is a pattern of three shapes that repeat. What would come after the triangle we just added?
- 5. Next you can try a number pattern, and/or ask if anyone else has a pattern idea to write on the board. Remind the volunteer to repeat the pattern several times, then challenge the rest of the group to figure out what comes next. Circle the part of the pattern that repeats to make it clear for the group.

CASEWORK:

- Tell the group: Now it's your turn to create a pattern for your fellow agents to solve. Remember what Ms. O said in her letter: you are going to get better at seeing and understanding patterns by making some yourself. Explain to the group that they are going to pair off and both partners will get the chance to make a pattern for the other to solve.
- 2. Give the pairs time to experiment with making their patterns on scratch paper; then have them copy them onto the <u>Odd Pattern Sheet</u>. Say: Think about what kind of pattern you want to make. Use the scratch paper to try things out. When you're ready, put your pattern down on the pattern sheet. Circulate around the room to see how children are doing and to offer help.
- 3. Say: Agents! It's time to crack each other's patterns. Trade sheets and try to figure out what comes next in your partner's pattern.
- 4. The children should work independently to identify and extend the pattern. Once they've figured it out, they can share it with their partner who can tell them if they're correct.
- 5. Children can do several rounds of pattern-solving with different partners in the room. They can continue to use the same pattern they came up with originally or they can switch it as they switch partners.

CASE CLOSED:

Gather your agents back into a group.

Say: Great work, agents! We've created a real ace team of Patternistas here. As part of our training, we like to review what we learned from the case and enter it in the case file so that future agents-in-training can learn from it.

Ask: What did we learn? How can we make or figure out patterns? What kinds of things can you make into a pattern?

Write down the learnings/findings that the children share, close your case file and write CASE CLOSED across the front. Congratulate your agents on a case well solved.



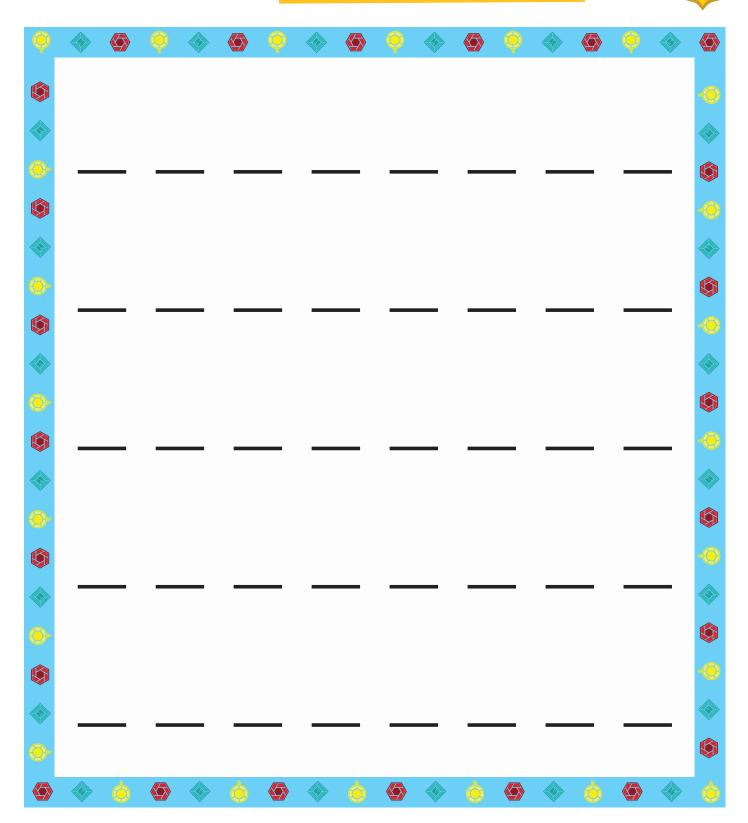








ODD PATTERN SHEET













ODD SQUAD SEAL







