

## First Opinion: Are You Right or Are You Wrong?

Danielson, Christopher. *Which One Doesn't Belong*.  
 Portsmouth, NH: Stenhouse, 2016. Print.

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*Which One Doesn't Belong*, by Christopher Danielson, is a picture book consisting of eleven puzzles. Each puzzle spans two pages in the book. On the right side are four shapes, with one shape in each quadrant of the square page. On the left side, a simple question, "Which one doesn't belong?" is written (Danielson 16). What makes this book unique compared to traditional puzzle books is the notion that there is more than one answer. In fact, no answer key is provided at the end of the book like a traditional puzzle book, thus inviting readers to consider multiple answer possibilities. Rather than focusing on the shape that does not belong, the author asks the reader to focus on the *reason* the shape doesn't belong. In other words, the author is asking the reader to concentrate on the justification of his or her shape choice.

The author provides a guided example for the first puzzle, which consists of a lime-green equilateral triangle standing on its point; a lime-green square tilted 45 degrees so that it is standing up on its point; a turquoise rhombus that is outlined in lime green, standing on its point so that the length is taller than its width; and a lime-green rhombus that is lying on one of its sides. After asking the reader to choose a shape that doesn't belong, the author then guides the reader through an explanation describing why each of the four shapes may have been chosen as the shape that doesn't belong. In addition to using traditional mathematics shapes such as triangles, squares, and hexagons, Danielson also includes non-traditional shapes like swirls and shapes with curved lines.

As an elementary mathematics teacher educator, I believe *Which One Doesn't Belong* is an excellent book for promoting mathematical thinking and reasoning with geometric figures.

Teachers can use this book to teach students to justify answers and practice higher-order thinking. This book allows teachers to meet the Common Core Standards for Mathematical Practice, “construct viable arguments and critique the reasoning of others” (CCSSI “CCSSM” 6-7). By choosing a shape that does not belong and providing a reason for choosing the shape, students have the opportunity to “justify their conclusions [and] communicate them to others” (CCSSI “CCSSM” 6-7). Because the book provides opportunities for students to practice communicating mathematically, it also meets the speaking and listening standards found in the Common Core Standards for English Language Arts (CCSSI “CCSELA”).

This book is appropriate for teachers and parents with children in all elementary grades, from kindergarten through fifth grade. As a parent, I was fascinated to hear my five-year-old’s justification behind his shape choice. Because the book emphasizes justifications, I would suggest children read this picture book with a partner. Reading this book with a peer or parent is more entertaining than reading it alone because having a discussion about the shape choice is what makes the book attractive and engaging.

It will be valuable for teachers and parents to revisit the book over the course of a year or over multiple years because students’ thinking and reasoning will change as they learn more mathematics. Students’ mathematical language will also become more sophisticated as time passes, allowing for new ideas and richer discussions to occur. Moreover, students will be able to solve problems they could not solve earlier or they will be able to come up with different answers to the same problem. My five-year-old son could articulate his reasoning for the first two puzzles but not for others, so I look forward to rereading this picture book again as he matures.

*Which One Doesn’t Belong* is not only engaging, it allows opportunities for children to develop and practice essential mathematics and language arts skills. No wonder it won the Mathical Book Prize in 2017 for inspiring children to experience mathematics in their own world.

## Works Cited

- Common Core State Standards Initiative (CCSSI). *Common Core State Standards for Mathematics (CCSSM)*. 2010, Washington, DC: National Governors Association Center for Best Practices and the Council of Chief State School Officers. [http://www.corestandards.org/wp-content/uploads/Math\\_Standards1.pdf](http://www.corestandards.org/wp-content/uploads/Math_Standards1.pdf)
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### **About the Author**

**Diana Chang** is an assistant professor of elementary education at the University of North Georgia. Her research focuses on early childhood and elementary mathematics education. She is particularly interested in the intersection between children’s play and mathematical learning, such as playing with puzzles.