MATHEMATICS TEACHER
Learning & Teaching
PK 12

Mathematics Teacher: Learning and Teaching PK-12, is NCTM's newest journal that reflects the current practices of mathematics education, as well as maintains a knowledge base of practice and policy in looking at the future of the field. Content is aimed at preschool to 12th grade with peer-reviewed and invited articles. *MTLT* is published monthly.

ARTICLE TITLE:

Hyperbolic Duckies

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DIGITAL OBJECT IDENTIFIER: 10.5951/MTLT.2023.0258

VOLUME: 116

ISSUE NUMBER: 12

Mission Statement

The National Council of Teachers of Mathematics advocates for high-quality mathematics teaching and learning for each and every student.

Approved by the NCTM Board of Directors on July 15, 2017.

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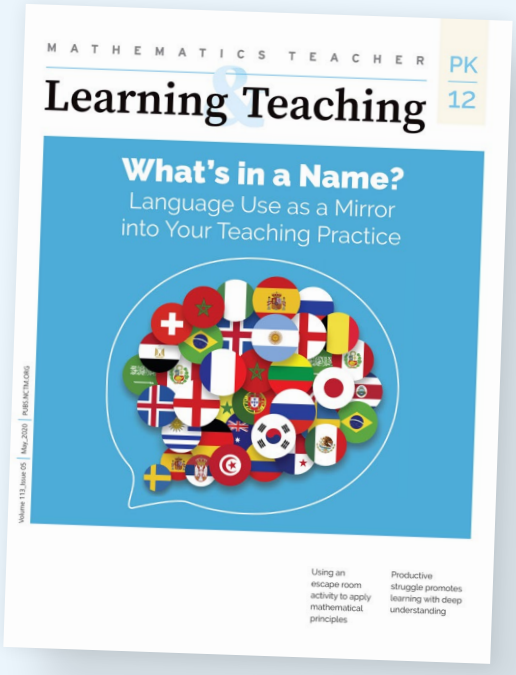

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Hyperbolic Duckies

Sophia Wood

In coding, there is a method of debugging called "rubber ducky debugging," in which a programmer finds a bug by explaining their code to a rubber ducky.

This method also works with math. When blocked, I can explain a problem step-by-step, and through this monologue, muddy waters become clear; sometimes I might even have a moment of pure discovery.

For my debugging practice, I wanted my listener to embody a mathematical concept: exponential growth. So, from a single stitch of yarn, I doubled it again and again and again: a circle of stitches became a curved chip that became a semi-sphere. Doubling stitches repeatedly is an algorithm of creation.

Through crochet, I brought the abstract into reality. From a single stitch grew a hyperbolic ducky to be talked to and loved, a companion that listens to my mathematical musings and problems while providing a soft non-Euclidean structure to hug.

Who is your ducky? Are you a ducky to others?

For the Love of Mathematics, driven by reader suggestions and submissions, offers visual, engaging, and inspiring material for you, the teacher.

Sophia Wood, is the creator of fractalkitty.com, produces content for Brilliant.org, and consults as a math specialist and instructor for local schools. She has a passion for the intersections of math and art.

doi:10.5951/MTLT.2023.0258

