

WONDER — Issue #1

learn wonder experience beauty

June 2020

learnx.ca/wonder

WONDER

Life is full of wonder.
Beauty.
Sometimes unexpected.
In Math. Science.
And other subjects.

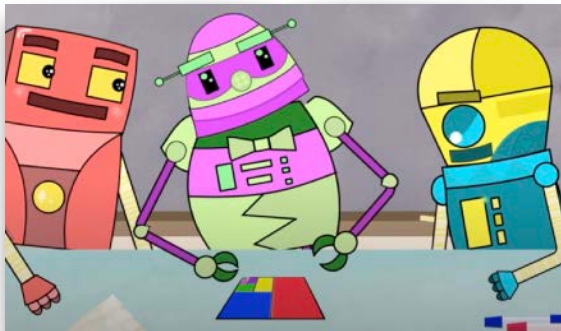


Wonder is an emotion comparable to surprise that people feel when perceiving something rare or unexpected. It has historically been seen as an important aspect of human nature, specifically being linked with curiosity and the drive behind intellectual exploration. [Wikipedia](#)

INSIDE ISSUE #1

1. INFINITY

Infinity is big. But you can hold it in your hand!



Topics

Grades 2-12

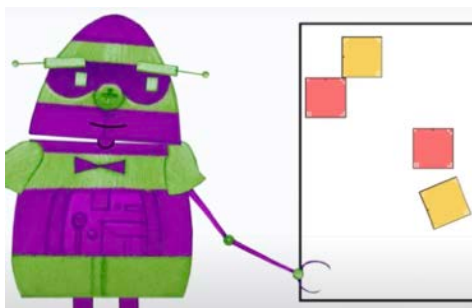
Area representations of fractions.
Fractions and decimals.
Growing and shrinking patterns.
Infinity. Limit.

Modes

Hands-on. Coding extensions.
Animations. Videos.
Interview with a mathematician.
Artistic forms of expression.

2. SYMMETRY

The more it changes, the more it stays the same!



Topics

Grades 2-8

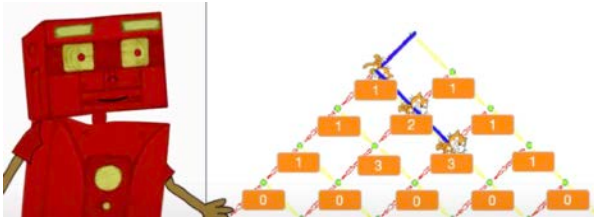
Symmetry as a transformation.
Rotation and reflection symmetries.
Fraction and degree turns.
Symmetry as a permutation of vertices.

Modes

Hands-on. Coding extensions.
Animations. Videos.

3. BINARY CHOICE

Binary choice: Yes or No?



Topics

Grades 1-10

Probability with coins. Pascal's triangle.
Experimental & theoretical probability.
Weighted outcomes.
Binary choice in probability and in algebra.

Modes

Hands-on. Coding extensions.
Animations. Videos.
Interview with a mathematician.

4. RELATIVE DENSITY

Will it sink? Will it float?



Topics

Grades 1-8

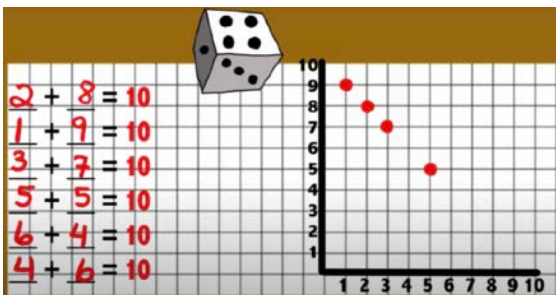
Density. Relative density. Buoyancy.
Experimental & theoretical probability.
Weighted outcomes.
Binary choice in probability and in algebra.

Modes

Children's literature.
Hands-on. Experiments.
Coding extensions.
Artistic forms of expression.

5. RENE DESCARTES

Random pairs line up? How is that possible?



Topics

Grades 3-9

Number sense. Ways of making 10.
Patterning & algebra.
Plotting ordered pairs.
Linear relationships.

Modes

Children's literature. History of math.
Hands-on. Investigations.
Coding extensions.

6. MENELAUS OF ALEXANDRIA

Parallel lines don't meet? That can't be true!



Topics

Parallel lines. Spherical geometry.

Grades 1-8

Modes

Children's literature. History of math.
Hands-on. Investigations.
Artistic forms of expression.

7. YOU

I want. To be. Like you. To wonder. See beauty.



Topics

Humans wonder.
See beauty. Create it.

Grades 1-12

Modes

Animation.
Sharing / communication.

IDEAS THAT TRAVEL

SHARE AN IDEA

Take your favourite idea from this issue of Wonder. Share it with a family member or friend, in a way that helps them experience a sense of wonder.

Get a **FREE "wonder" t-shirt**

... for the first 10 students (Grades 1-12) that share one of the activities with a family member or friend, and **email ggadanid@uwo.ca**:

- Describe the WONDER activity
- What did you learn?
- What/How did you share?
- How did you feel?
- Your name and mailing address
- Size of t-shirt: S, M, L

