Mathkind

Tutorial

- Go to the webpage: https://mathkind.org/global-math-stories/
- Choose a continent and a math story from there that you want to familiarize.
- Read the story.
- From the right side of the page, you will find Math resources, Social justice questions and more information about the topic.

CANADA

What Is Curling?

By Jenny McGlone

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The phrase "people with brooms" may conjure up a variety of visual images. A resident of the US might think of sweeping up after a party. Someone else might imagine a father cleaning the kitchen after preparing a meal for his children. For residents of **Canada**, these words might create visions of intense competitions between teams of dedicated athletics.

Curling Explained

The sport of curling entails two primary pieces of equipment. Foremost is a large, round, polished granite *stone* weighing between 17 and 20 kilograms. The maximum allowable circumference is 910 millimeters. A colored handle is attached to the top of the rock that allows a player to aim it. Team members called *sweepers* use push brooms made of synthetic or horse hair to buff the ice in front of the rock, reducing friction so that it can travel farther and straighter.

Two teams of four players take turns sliding their rocks down a long piece of ice toward a circular target, called the *house*. The dimensions of the piece of ice, or *sheet*, can be no more than 150 feet (ft.) long and 16.5 ft. wide.

The house looks like a bullseye with three concentric rings. It is made up of four parts:

- *button* — the small circle at the very center
- next bigger circle extending out by 2 ft. (4 ft. in diameter)
- next one by 4 ft. (8 ft. in diameter)
- final circle at 6 ft. (12 ft. in diameter)

The team that manages to place the stone in the button will score the most points. A rock does not score unless it touches at least the outermost circle.

Preparation of the Ice

As you can imagine, the surface of the ice is very important. It is usually maintained at a temperature of ~5°C. Before a match begins, the ice maker

Math Resources	○
Social Justice Question	○
Explore Further	○

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Tutorial

- Open Math resources and choose the learning activity.
- Remember to check the grade level for which the task is designed.
- You can also create your own problem-solving task based on the story!
- It's worth spending time familiarizing yourself with the topics and content. On the website, you will find interesting slideshows that support teaching and motivate students to follow along.

Math Resources

Learning Activity:

- Comparing Fractions (Grades 5–7)

Sample Problems:

1. If a team has one rock weighing 17.5 kilograms, one weighing 18.75 kilograms, and one weighing 20 kilograms, what is the average weight of their rocks?
2. What is the circumference of the 4-ft. circle at the center of the house? What is the area of that circle? Calculate circumference and area for the other circles, too.
3. If the maximum number of points any team can win in an end is eight, what is the maximum score achievable in one match?

Select a Collection

Many stories come with supplementary resources for teachers to use to engage students and encourage deep thinking. Browse through these collections to find what will work in your classroom.

Learning Activities

Find high-demand tasks that will support student-centered learning by meaningfully engaging your students in math content.

Select

Social Justice Questions

Weave social justice themes into your math lessons. From climate change to gender equity, topics encourage critical thinking.

Select

Slideshows

Make your own copy of these image-packed Google Slides and customize them to fit your classroom or curriculum.

Select

- If you get interested in creating your own math stories, you can add them to the platform.
- We recommend thoroughly reviewing the materials in advance, as one topic can include many different activities. It's not advisable to leave this familiarization for the lesson.

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Example

Europe, Norway: Friends or Froze? (Age group: 12+)

- **Mathematics:** multiplication and division
- **Biology, Geographic or Environmental studies:** Norway, polar bears

Review the prepared materials and select suitable activities for your student/group. Planning the lesson and familiarizing yourself with the topic takes approximately 30 minutes. Familiarize yourself particularly well with the slideshow, as it will help you progress throughout the entire lesson.

- **Step 1.** Read the story of Friends or froze. Use the slide show when reading the story. You can engage students by asking what they know about polar bears or Norway.

- **Step 2.** Proceed to the activity that you have selected in advance, either from slideshow or Math resources.

- **Step 3.** You can give additional beforehand chosen tasks to the fastest learners. You can create your own problem-solving tasks related to the topic or you can utilize the activities in Math resources.

- **Step 4.** If you wish, you can expand the topic to include climate change. More ideas you will find from "Explore Further".