

Celebrate National Pi Day with IXL



4th and 5th Grade Activities

PI DAY COOKIE CHALLENGE

1. Start off by providing a mini-lesson on how to calculate the radius, diameter, and circumference of a circle.
2. Check for understanding with IXL skills [BB.12 Calculate radius, diameter, and circumference \(Grade 4\)](#) or [EE.15 Radius, diameter, circumference, and area of a circle \(Grade 5\)](#). Set a SmartScore goal of 85.
3. As students practice, use the [Real-Time Center](#) in IXL Analytics to monitor student progress and assist struggling students.
4. After students reach the SmartScore goal, give students 2–3 cookies of various sizes and a ruler or measuring tape.
5. Have students work independently or collaboratively to find the radius, diameter, and circumference of each cookie. After checking their answers with the answer key, they can eat their cookies.

CELEBRATING PI AND THE KNIGHTS OF THE ROUND TABLE

1. Read the book *Sir Cumference and the First Round Table* by Cindy Neuschwander to the class.
2. Then provide a mini-lesson on how to calculate the radius, diameter, and circumference of a circle.
3. Check for understanding with IXL skills [BB.12 Calculate radius, diameter, and circumference \(Grade 4\)](#) or [EE.15 Radius, diameter, circumference, and area of a circle \(Grade 5\)](#). Set a SmartScore goal of 85.
4. As students practice, use the [Real-Time Center](#) in IXL Analytics to monitor student progress and assist struggling students.
5. After students reach the SmartScore goal, tell the class that now you want a Round Table in the front of your classroom for all of your Scholars. Show students where the table must go in your classroom, making it clear that there must be room to walk around the table, push chairs in and out, and accommodate 10 Scholars at a time.
6. In collaborative teams, students will determine the perfect size for the table by calculating the ideal radius, diameter, and circumference based on the allotted space. Provide students with string, rulers, yard sticks, and tape measures.

6th and 7th Grade Activities

PI DAY SCAVENGER HUNT

1. Lead students in a review of how to calculate the area, circumference, radius, and diameter of a circle.
2. As you review with students, project IXL skills [FF.11 Circles: calculate area, circumference, radius, and diameter \(Grade 6\)](#) or [AA.5 Circles: calculate area, circumference, radius, and diameter \(Grade 7\)](#) on a screen. Use IXL to check for understanding as a class by having students solve a few questions on a whiteboard and then inputting their answers in IXL.
3. If students answer incorrectly, review IXL's feedback together to determine where the error occurred.
4. Then have students practice the IXL skills independently on their devices. Set a SmartScore goal of 85.
5. Group students into collaborative teams and provide a scavenger hunt organizer that asks them to locate 10 circular items either in the classroom or school. Students must note on the organizer the objects, as well as their radii, circumferences, and diameters.
6. After finishing, reward all students with a circular treat (e.g., a cookie, an eraser, etc.).

Geometry (or High School) Activities

PI DAY & BUFFON'S NEEDLE EXPERIMENT

1. As a class warm-up, have students complete IXL skill [S.7 Area and circumference of circles \(Geometry\)](#), working to a SmartScore of 90.
2. Introduce students to Buffon's Needle Problem via this 10-minute video: [Pi and Probability: Buffon's Needle Problem](#).
3. In collaborative groups, have students tackle Buffon's needle experiment. You can find a guide to the experiment procedure [here](#).
4. Have students share their findings with the class, discussing challenges, perceptions or misperceptions, and the difference between a theory and reality.

4th through 12th Grade Activities

*The activity below is only recommended for students who already have pi-related confidence.
This activity is not meant as a way to check for understanding following instruction.*

RACE TO PI MASTERY

1. Assign students independent IXL skill practice on their device, either below, on, or above grade level, focused on finding the circumference, radius, and diameter of a circle.
2. Students may not begin to practice until you give the signal and have IXL's [Real-Time Center](#) projected on the board.
3. Once you give the signal, students should tackle the assigned skills, monitoring their progress and their classmates' progress via the Real-Time Center.
4. Reward the first student to achieve mastery with a circular prize (e.g., a cookie, a piece of pizza, etc.), followed by second place, third place, etc. until all students have collected their reward. Provide support to struggling students or have students who have mastered the skill assist them.

