

PI DAY PIN

Make a piece of Pi in honor of π -Day, March 14th

Curriculum topics

- Area
- Circles
- Circumference
- Geometry
- Irrational Numbers
- Number Systems

Subjects

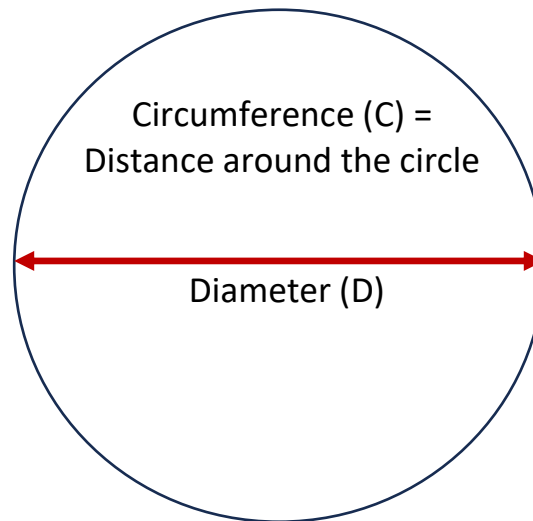
- Mathematics

Grade range: 3 – 8

Who we are: Resource Area for Teaching (RAFT) helps transform the learning experience by inspiring joy through hands-on learning.



This fun math project encodes digits of Pi into a pin that reinforces the famous ratio of a circle's circumference to its diameter!



$$\pi = \text{Circumference} / \text{Diameter} = C / D$$

Share Your feedback!

<http://bit.ly/RAFTkitsurvey>

Materials

Materials in the kit may vary but generally, this kit contains the following:

- Pony beads, 11 different colors (5 each color)
- Plastic cup lid, 3-4" in diameter (1)
- Pi Day Pin Color Code Sheet, see page 4 (1)
- Chenille stem (pipe cleaner) (1)
- Pin back, adhesive (1)
- **Not included:** Scissors, glue, colored pens or pencils

WARNING: CHOKING HAZARD – Small parts not suitable for children under 3 yrs.

To Do and Notice

1. Pin Assembly: Select a different pony bead color to represent each digit of Pi (e.g., 0, 1, 2, ..., 9). The first 33 digits of Pi are 3.14159265358979323846264338327950.
2. Select a different color bead to represent the decimal place in the number Pi.
3. The inside of the lid is the side with a rim groove along its circumference. Cut out a paper color code circle from page 4. Color each white circle in the color code to match the bead colors chosen for each of the digits and for the decimal point.
4. Glue the paper color code circle to the inside the lid. Trim as needed to make it fit.
5. String one bead onto the chenille stem for each digit and the decimal point of Pi, making sure the order matches the color code (see step 3 above). Make sure the beaded chenille stem fits inside the lid rim, leaving a small space between the first and last beads **before** twisting the ends together.
6. Twist the ends of the chenille stem together. Place the bead circle so the start of the digits of Pi appears at the top of the pin. Glue the bead circle to the lid rim.
7. Add a pinback and wear the Pi Day pin. Adjust as needed. Optional: Create a Pi Day pendant or bracelet to go with the pin!
8. **Share** your learning with RAFT! Submit photos/video via email at education@raft.net or on social media ([Facebook](#), [Twitter](#), [Instagram](#)).



Core Content Skills:

Common Core Math (CCSS)

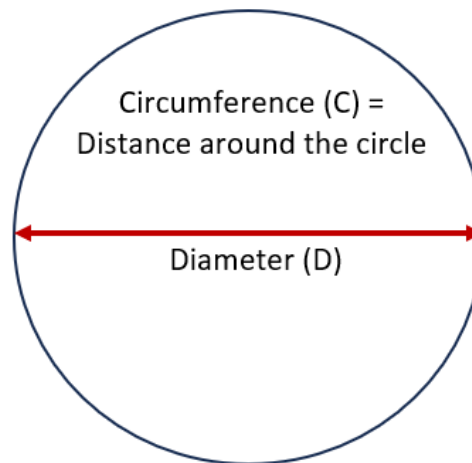
Developing and Using Models (Mathematical Concepts), Number Sense/Systems: Fractions (Numerators and Denominators), Geometry: Attributes of Circles (Area and Circumference), Ratios & Proportions, Cause and Effect

Social Emotional Learning

- Self-awareness
- Self-management
- Responsible decision-making

The Content Behind the Activity

Celebrate Pi! The Greek letter π is the symbol for the ratio of the circumference of any circle to its diameter; a relation that is the same for all circles and has been known for over 4,000 years! Pi Day is March 14th, which can be written as 3/14 as in 3.14, the first 3 digits in the number π . Pi Day is celebrated every year by math enthusiasts around the world. Pi is an irrational and transcendental number meaning it will continue infinitely without repeating. With the use of computers, Pi has so far been calculated beyond 1 trillion digits past the decimal point!



$$\pi = \text{Circumference} / \text{Diameter} = C / D$$

Reuse

This kit uses 100% reusable materials designed for other uses. To continue making a positive impact in reducing waste, reuse these materials in other projects. Additionally, any unused materials can be collected and delivered back to RAFT.

Feedback

Please comment on this kit by taking this short survey: <http://bit.ly/RAFTkitsurvey>. Let us know of any material concerns (missing, broken, or poorly fitting parts) as well as any suggestions for improvement.

Visit <https://raft.net> to view related activities!

- Finding Pi
- Forest Ranger Tape
- Frack Jack
- Wearable Pi

Resources

- YouTube video (10:20), What is Pi? - <https://bit.ly/3lwYf9n>
- Kiddle, Pi Facts for Kids - <https://bit.ly/3VhHy9j>

PI DAY PIN COLOR CODE SHEET

See step 3 in **To Do and Notice** on page 2 for instructions.

Digits of Pi

0 =

5 =

1 =

6 =

2 =

7 =

3 =

8 =

4 =

9 =

Digits of Pi

0 =

5 =

1 =

6 =

2 =

7 =

3 =

8 =

4 =

9 =

Digits of Pi

0 =

5 =

1 =

6 =

2 =

7 =

3 =

8 =

4 =

9 =

Digits of Pi

0 =

5 =

1 =

6 =

2 =

7 =

3 =

8 =

4 =

9 =