

PI DAY

CUBE CODE

What is often used to celebrate the Pi Day?

A. John Conyers
B. Larry Shaw
C. Isaac Newton
D. Albert Einstein

What process did Archimedes use to calculate Pi?

A. Method of exhaustion
B. Theory of Relativity
C. Method of Measures
D. Theory of Pursuit

What does the Greek word perimetros mean?

A. Force
B. Circumference
C. Diameter
D. Prism

What areas of study have properties and applications for Pi?

A. Engineering
B. Math
C. Science
D. All of the above

the year the first Pi Day was celebrated MINUS 1982.

The FIRST number of the lock is the number of digits Sir Isaac Newton recorded of Pi in 1665 MINUS 15.

The THIRD number of the lock is the day in March celebrated as Pi Day MINUS 12.

4	Reciprocity	7	Princeton
5	triangle	8	Boston
6	square	9	round

As for how to celebrate Pi Day, the options are --- (pun intended).
a march and celebrate with discounted celebratory divided eating it a fun an im

STATION 2:
First, number ALL the paragraphs on your reading passage. Then, read each statement below and determine which paragraph NUMBER the statement can be found in. Lastly, eliminate ANY answer where the answer was found in an EVEN numbered paragraph, leaving only ODD numbers as your final code (in the order of questions). Paragraph numbers MAY be used more than one time or not at all.

STATION 3:
Read each statement below and determine if it is true or false. If the statement is true, color or shade the coin that corresponds to the question. If the statement is false, cross out that coin value. Once you are finished add the TOTAL of ALL TRUE coin values. Code has been provided for you. If the total is 625, a 6 in the first box, the 2 in the second box and so on.

- A** The word "pi" comes from the Greek word perimetros, which means circumference.
 - B** The resolution was sponsored by Congress in 1988.
 - C** Princeton is known as Pi Day.
 - D** The number pi is an irrational number.
 - E** A physicist named Albert Einstein discovered pi.
 - F** Many mathematicians have calculated pi to billions of digits.
- ELIMINATE

- A** The fraction $\frac{29}{6}$ has been deemed an acceptable number to use for pi.
- B** Einstein is most known for his Theory of Relativity or $E=mc^2$.
- C** Pi represents the constant ratio of a circle's circumference to its diameter.
- D** Pi Day originally took place at the Exploratorium in San Francisco.
- E** Plato is most commonly credited with being the first to accurately calculate Pi's value.
- F** Sir Isaac Newton recorded 24 digits of pi.
- G** Many mathematicians have celebrated the first Pi Day with fruit pies afterward.
- H** Pi is an irrational number and its digits cannot be expressed as a ratio of two integers.

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What process did Archimedes use to calculate Pi?

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4 DIGIT CODE:

PI DAY

Let's talk about Pi. No, not pie like you might eat during the holidays. Pi as in the number that goes on to infinity. The number is transcendental (not algebraic) and irrational. Irrational numbers cannot be expressed as the ratio of two integers. It seriously never ends, but usually you only need to know the first three digits: 3.14. Pi starts with 3.14159265358979323846264338327950288... and continues without end. The never-ending number needs to be abbreviated for math problems and using 3.14 or the fraction $\frac{22}{7}$ has been deemed an acceptable number to use.

Sir Isaac Newton recorded 16 digits of Pi in 1665. Mathematicians have since calculated Pi to billions of digits, and its decimal representation has been studied extensively. Despite its first appearance in ancient times, Pi has been



STATION 1:

Use your reading passage or deductive reasoning skills to determine the missing words in the paragraph below. Each missing word has a corresponding NUMBER. The 4-digit code will be the NUMBER of each missing word in the same order in which they appear in the paragraph.

STATION 2:

First, number ALL the paragraphs on your reading passage. Then, read each statement below and determine which paragraph NUMBER the statement can be found in. Lastly, eliminate ANY answer where the answer was found in an ODD numbered paragraph, leaving only EVEN numbers as your final code (in the order of questions). Paragraph numbers MAY be used more than one time or not at all.

STATION 3:

Read each statement below and determine if it is true or false. If the statement is true, color or shade the coin that corresponds with that question. If the statement is false, cross out that coin value. When you are finished add the TOTAL of ALL TRUE coin values. One digit of the code has been provided for you. If the total is 625, a 6 would go in the first box, the 2 in the second box and so on.

STATION 4:

Use your reading passage to determine the combination to the 4-digit lock. You're going to have to use your critical thinking skills and do a tiny bit of math. Pay attention because the "clues" below are NOT in order.

STATION 5:

Answer each multiple choice question below. Then, count the number of times you used each letter answer (ABCD) to reveal your 4 digit code. Answer options may be used more than once or not at all. If a letter option is not used, simply put a zero in the box.

STATION 6:

Reread the passage and write the main idea in your own words. Then, add TWO supporting details that back up your main idea or topic sentence.

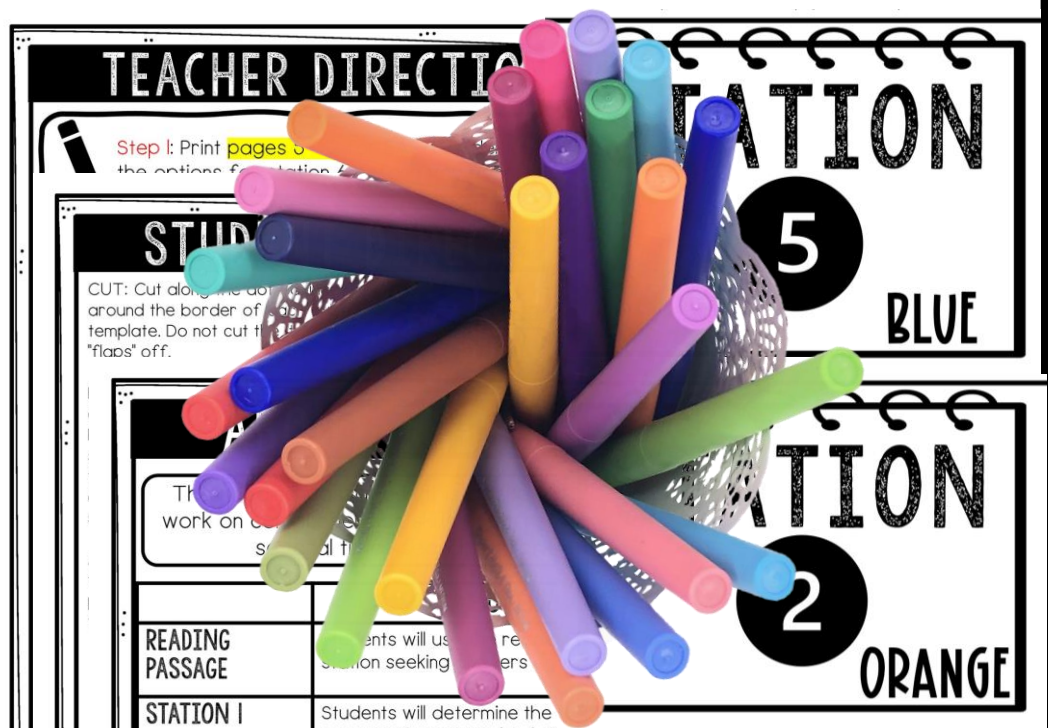
STATION

1

RED

WHAT'S INCLUDED?

- READING PASSAGE
- 6 STATIONS
- TEACHER GUIDE
- STATION CARDS
- ANSWER KEY
- STUDENT DIRECTIONS
- TEXT MARKING OPTION
- ALTERNATE STATION
- ASSEMBLY TIPS



6 STATIONS

STATION 1:

Use your reading passage or deductive reasoning to determine the missing words in the paragraph below. The missing word has a corresponding NUMBER. The 4-digit code will be the NUMBER of each missing word in the same order in which they appear in the paragraph.

1	Relativity	4	Reciprocity	7	Princeton
2	limited	5	triangle	8	Boston
3	infinite	6	square	9	round

As for how to celebrate Pi Day, the options are... (pun intended) many people celebrate Pi Day by selling pies at a discount. Some choose to celebrate by having a contest that can be divided into many categories, such as having a pie-eating contest. Some strive to make it a fun holiday with awareness an important part.

STATION

1

RED

...New Jersey celebrates March 14th as Pi Day. Albert Einstein's birthday. The town hosts numerous events.

STATION 6:

Reread the passage and write the main idea in your own words. Then, add TWO supporting details that back up your main idea or topic sentence.

MAIN IDEA

STATION

6



SUPPORTING DETAIL #2

STATION 4:

Use your reading passage to determine the combination to the 4-digit lock. You're going to have to use your critical thinking skills and do a tiny bit of math. Pay attention because the "clues" below are NOT in order.

The LAST number of the lock is the year the Greek letter π was first used MINUS 1700.

The SECOND number of the lock is

STATION

4

GREEN

4 DIGIT CODE

STATION 5:

Answer each multiple choice question below. Then, count the number of times you used each letter answer (ABCD) to reveal your 4 digit code. Answer options may be used more than once or not at all. If a letter option is not used, put a zero in the box.

What fraction is often used to represent Pi?

- A. 16/3
- B. 22/7
- C. 25/9
- D. 27/4

What Congressman sponsored the Pi Day resolution?

- A. John Conyers
- B. Larry Shaw

STATION

5

BLUE

When did Pi Day become an official day of Mathematics?

- A. 2013
- B. 2015
- C. 2017
- D. 2019

What are the properties of Pi?

- A. Engineering
- B. Math
- C. Science
- D. All of the above

- A. Force
- B. Circumference
- C. Diameter
- D. Prism

A B C D

STATION 3:

Read each statement below and determine if it is true or false. If the statement is true, color or shade the coin that corresponds to the statement. If the statement is false, do not color or shade the coin. One coin has been colored to show the first digit of the code.

STATION

3

YELLOW

A 75

B 25

C 50

D 100

- C. Pi represents the constant ratio of a circle's circumference to its diameter.
- D. Pi Day was first celebrated at the Exploratorium in San Francisco.
- E. Plato is most commonly credited with being the first to use the symbol π to represent the value.
- F. Sir Isaac Newton recorded the 24th digit of Pi in 1567.
- G. Shaw celebrates the first Pi Day with a march and fruit pie afterward.
- H. Irrational numbers cannot be expressed as the ratio of two integers.

4 DIGIT CODE

STATION 2:

First, number ALL the paragraphs on your reading passage. Then, read each statement below and determine which paragraph NUMBER the statement can be found in. Lastly, eliminate ANY answer where the answer was found in an EVEN numbered paragraph, leaving only ODD numbers as your final answer. The final answer is the sum of the remaining paragraph numbers.

STATION

2

ORANGE

A

B

C

D

E

F

G

H

- The first Pi Day was celebrated in 1988.
- The first Pi Day was celebrated in 1988.
- The first Pi Day was celebrated in 1988.
- The first Pi Day was celebrated in 1988.
- The first Pi Day was celebrated in 1988.
- The first Pi Day was celebrated in 1988.
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- The first Pi Day was celebrated in 1988.

ELIMINATE ALL EVEN NUMBERS TO DETERMINE THE FINAL CODE.

4 DIGIT CODE

A B C D

4 DIGIT CODE

4 DIGIT CODE

SAMPLE CUBE



STATIONS

STATION 1	Students will determine the missing words in the paragraph to reveal a 4 digit code.
STATION 2	Students will number the paragraphs and browse the passage to determine where the answers can be found (paragraph number). After eliminating EVEN numbers, a 4 digit code will be revealed.
STATION 3	Students will read each statement and determine if it is true or false. They will then ADD all TRUE values to find the 4 digit code.
STATION 4	Students will do some basic math here, read the passage to find the answers and then determine the 4 digit code.
STATION 5	Students will answer 6 multiple choice questions which lead them to a 4 digit code based on the number of times they used each "answer".
STATION 6	Option 1: Main idea writing activity Option 2: Color and add topic
TEXT MARKING	OPTIONAL: A color code chart is included in case you want students to mark the text citing evidence of where they found their answers.

**STUDENTS WILL
USE THE SAME
READING
PASSAGE AT
EACH STATION
SEEKING
ANSWERS AND
TEXT EVIDENCE.**

HOW IT WORKS



ENGAGING READING COMPREHENSION PRACTICE!

1

Students work individually (or in pairs) and visit 6 stations, grabbing one side of their cube at each station.

2

Students will answer the questions (found directly in the passage) on their cube sheet before assembly. Students will revisit their reading passage at EACH station!

3

Students will reveal 4-digit codes to move on to the next station. When they finish all stations, they can color and assemble their cube.

STATION

Read each statement below and determine if the statement is true, color or shade the corresponding question. If the statement is false, cross it out. When you are finished add the TOTAL of ALL TRUE statements. A 4-digit code has been provided for you. If the code is 1234, the 1 in the first box, the 2 in the second box and so on.

A
75

B
25

C
50

D
100

A. The fraction $\frac{29}{6}$ has been an acceptable number to use for centuries.

B. Einstein is most known for his theory of Relativity or $E=mc^2$.

C. Pi represents the constant ratio of a circle's circumference to its diameter.

D. Pi Day originally took place at the Exploratorium in San Francisco.

E. Plato is most commonly credited as the first to accurately calculate the value of Pi.

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G. Shaw celebrated the first Pi Day with a march and fruit pies afterward.

H. Irrational numbers cannot be expressed as the ratio of two integers.

4 DIGIT CODE →

COMBINATION



Each Cube Code is a winning combination of:


- stations and movement
- close reading
- comprehension skills
- coloring and stress relief
- secret codes
- cut and paste
- citing evidence
- critical thinking

Everything a teacher dreams of wrapped up into one FUN and engaging activity!

BENEFITS



THINK OUTSIDE THE BOX!

-  ANTICIPATORY SETS
-  UNIT REVIEW
-  EARLY FINISHERS
-  STATIONS
-  SUB PLANS
-  PARTNER WORK
-  ENRICHMENT

-  HANDS-ON
-  CROSS-CURRICULAR
-  HIGHLY ENGAGING

