

DWARF PLANET PLUTO

CUBE 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 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 statement. If the statement is false, cross out that coin value. After you are finished add the TOTAL of ALL TRUE coin values. The total 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.

PLUTO
Did you know that a 100-pound person on Earth would only weigh 7 pounds on Pluto? Pluto, once the ninth planet in the Solar System, is a dwarf planet that orbits the sun. It is located in the Kuiper Belt, a region beyond the eighth planet of Neptune, which contains icy objects. When Pluto was first discovered in 1930 by astronomer Clyde Tombaugh, it was named the ninth planet. For 75 years, it held onto that title. However, in 2006, the International Astronomical Union (IAU), an organization of scientists from all over the world, changed its classification to a dwarf planet. Tombaugh discovered Pluto using a telescope in Flagstaff, Arizona. A girl from Oxford, England, named Venetia Burney, named Pluto after the

THINK TANK

4 DIGIT CODE

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.

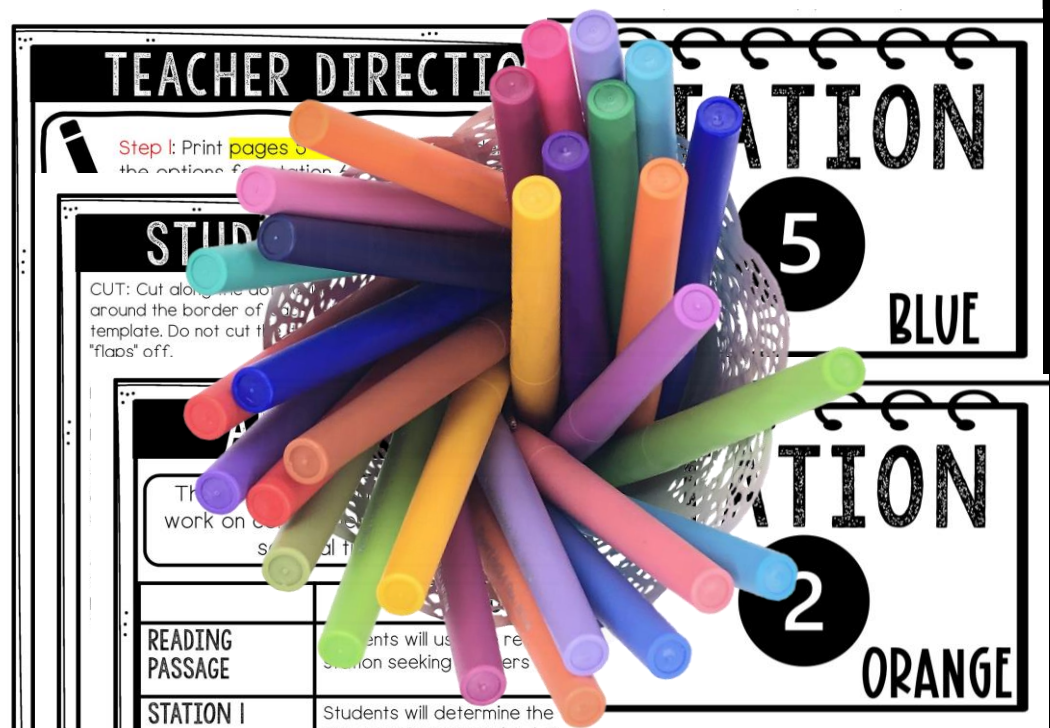
STATION

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	2019	4	five	7	2005
2	thin	5	thick	8	Nix
3	Hydra	6	Callisto	9	nine

There are ____ known moons that orbit Pluto: Charon, Styx, Nix, Hydra, and _____. Charon is the smallest moon of Pluto. Styx, Nix, and Hydra were discovered in 2011. Charon was discovered in 1978. Callisto is the largest moon of Jupiter. Callisto is named after the Greek goddess of the moon. Charon is named after the Greek god of the underworld. Charon orbits Pluto's furthest point from the Sun. Charon is the only moon of Pluto named after a mythological figure. Charon orbits Pluto at a distance of 19,570 kilometers. Both Nix and Hydra were discovered by the Hubble Space Telescope in ____.

STATION

1

RED

Pluto spins very slowly, tilted almost on its side. Charon orbits Pluto at a distance of 19,570 kilometers.

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 percent of rock that Pluto consists of MINUS 63.

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 (A, B, C, D) 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.

Which dwarf planet is closest to the sun?

- A. Ceres
- B. Pluto
- C. Makemake
- D. Eris

How many Earth years does it take Pluto to complete one revolution around the sun?

- A. 126
- B. 183

Pluto's thin atmosphere is composed of what gas?

- A. 68%
- B. 78%
- C. 88%
- D. 98%

Due to its low temperature, what color does Pluto appear to be?

- A. Reddish
- B. Bluish
- C. Greenish
- D. Yellowish

- A. Hades
- B. Jupiter
- C. Hercules
- D. Valhalla

STATION

5

BLUE

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 it. One coin has been colored for you. The 4-digit code has been revealed. The first box is empty.

STATION

3

YELLOW

A 75

B 25

C 50

D 100

- C. Pluto checks off the first two criteria of the IAU but not the third.
- D. Styx is the smallest moon of Pluto and was not discovered until 2012.
- E. Pluto is very cold, with an average temperature of -387 degrees Fahrenheit.
- F. Astronomers believe the greenish color of Pluto is from ammonia ice.
- G. Tombaugh Regio is a very large bright spot.
- H. Pluto was named after the Roman god of the underworld.

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 4-digit code is the sum of the paragraph numbers.

STATION

2

ORANGE

A

B

C

D

E

F

G

H

Pluto is the only dwarf planet in the Kuiper Belt.

Pluto is the largest dwarf planet in the solar system.

It takes Pluto 248 Earth years to complete one revolution around the sun.

In 1988, the space craft New Horizons was launched to explore Pluto and its moons.

The New Horizons spacecraft discovered Pluto using a telescope in Flagstaff, Arizona.

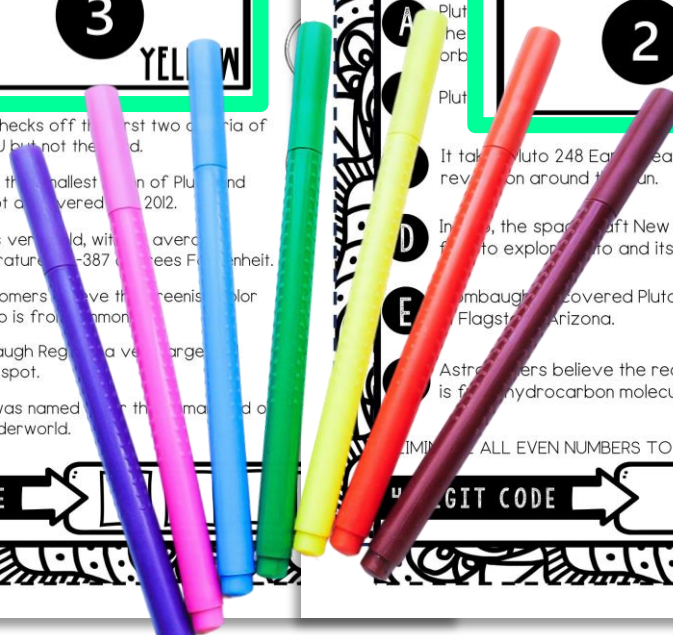
Astronomers believe the reddish color of Pluto is from hydrocarbon molecules.

Pluto is the only dwarf planet in the Kuiper Belt.

Pluto is the largest dwarf planet in the solar system.

ELIMINATE ALL EVEN NUMBERS TO DETERMINE THE FINAL 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

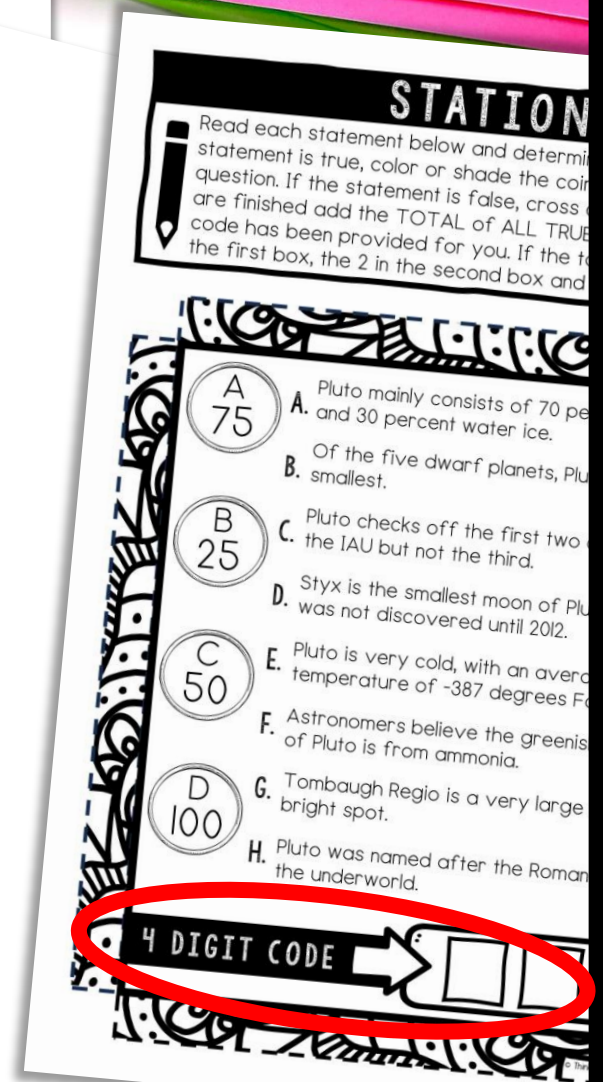
Students work individually (or in pairs) and visit 6 stations, grabbing one side of their cube at each station.

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 all questions are finished add the TOTAL of ALL TRUE statements. A 4-digit code has been provided for you. If the total is 75, write the 7 in the first box, the 5 in the second box and so on.

A 75

A. Pluto mainly consists of 70 percent rock and 30 percent water ice.

B 25

B. Of the five dwarf planets, Pluto is the smallest.

C 50

C. Pluto checks off the first two requirements for a planet but not the third.

D 100

D. Styx is the smallest moon of Pluto and was not discovered until 2012.

E

E. Pluto is very cold, with an average temperature of -387 degrees Fahrenheit.

F

F. Astronomers believe the greenish color of Pluto is from ammonia.

G

G. Tombaugh Regio is a very large bright spot.

H

H. Pluto was named after the Roman god of the underworld.

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

