

CELL CYCLE

ESCAPE ROOM

Station 1: Multiple Choice

6. During interphase, the human chromosomes are copied into how many chromosomes?

A. 4
B. 3
C. 2
D. None of the above

7. How many times you used each letter answer (ABCD) to solve the 4-digit code and record it on your answer sheet.

A. 62
B. 72
C. 82
D. 92

Station 2: Paragraphs

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. Paragraph numbers MAY be used more than one time or not at all. Use the directions below to reveal the 4-digit code and letter clue.

A. Mitosis creates new skin cells to replace dead skin cells.

B. Chromosomes are tiny structures that contain DNA.

C. Prokaryotic cells are unicellular and do not have a nucleus.

D. The centrosomes begin to move towards opposite poles of the cells, called the poles.

Station 3: True or False

Read each statement below and determine if it is true or false. If the statement is true, color the coin on YOUR answer sheet 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 to reveal your letter clue. 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.

A. The cells produced via mitosis are referred to as diploids. (Coin: 75)

B. Meiosis occurs when a single cell produces four new cells instead of two. (Coin: 100)

C. Eukaryotic cells are unicellular and do not have a nucleus. (Coin: 25)

D. DNA stands for deoxyribonucleic acid. (Coin: F)

Station 4: Paragraph and Code

During metaphase, a mitotic spindle pulls the chromosomes to the metaphase plate or lines them up in the middle of the cell. This will make it easier for the cell to divide in two. The next stage, called anaphase, is when the two identical halves of the chromosomes, called chromatids, split into two. Each chromosome of the chromosomes, identical to the other with the same genetic code. Finally, during cytokinesis, two new nuclei are formed around each of the two separated chromosomes. Then, the cell splits down the middle and becomes two cells. These new daughter cells each have their own chromosome set and nucleus. When the cell splits in two, it is known as mitosis. The cells produced via mitosis are referred to as diploids because they have two sets of chromosomes.

Once you determine the 4-digit code, decide if the code uses all EVEN #s, all ODD #s or a combination of both.

Code: 3102 1203
Letter: J N

Options: ALL EVEN (J), ALL ODD (K), COMBO (P)

Station 5: The Cell Cycle

THE CELL CYCLE

Cells are the basic structure of an organism. All living organisms are made up of cells. Some small organisms are unicellular, meaning they are made up of only one cell, such as bacteria. Animals are made up of billions of cells. Humans are made up of trillions of cells. All living organisms are made up of cells. There are two different types of cells: prokaryotic and eukaryotic. Prokaryotic cells are tiny structures that are unicellular. Eukaryotic cells are multicellular. Eukaryotic cells are made up of many cells. As with all living things, cells need to be replaced. Cells that are old and begin to die. In order to replace the worn-out cells, the body produces new cells. This process is called cell division. For example, if you fall and scrape your knee, the skin cells that were lost are replaced by new cells. The process of cell division is called mitosis. Mitosis is a type of cell division process that produces two identical daughter cells. The daughter cells are genetically identical to the parent cell. The process of cell division is called mitosis. Mitosis is a type of cell division process that produces two identical daughter cells. The daughter cells are genetically identical to the parent cell.

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STATIONS ACTIVITY

WHAT'S INCLUDED?

- ✓ READING PASSAGE
- ✓ 5 STATIONS
- ✓ TEACHER GUIDE
- ✓ ANSWER KEY
- ✓ STUDENT DIRECTIONS
- ✓ TEXT MARKING OPTION
- ✓ PROP SIGNS

STATION 1: FILL IN THE BLANK

Use your reading passage to determine the missing words in the paragraph below. Each missing word has a corresponding NUMBER. The 4-digit code for this station will be the NUMBER for each missing word, in the same order in which they appear in the paragraph. Then, record the clue LETTER on your answer sheet.

STATION 2: PARAGRAPHS

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. Paragraph numbers MAY be used more than one time or not at all. Follow the directions below to reveal the 4-digit code and letter clue.

STATION 3: TRUE OR FALSE

Read each statement below and determine if it is true or false. If the statement is true, color the coin on YOUR answer sheet 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 to reveal your letter clue. 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: COMBINATION

Use your reading passage to determine the combination to the 4-digit lock for this station. 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. There is room on your answer sheet to do the math.

STATION 5: MULTIPLE CHOICE

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

ANSWER RECORDING SHEET

Record your answers for each station on this sheet. Then, use the directions below to determine final 4-digit ALPHA code. Ex: HBDR

STATION CODES

LETTER CLUE

STATION 1	→	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	CODE
-----------	---	----------------------	----------------------	----------------------	----------------------	------

A	B	C	D	E	F	
---	---	---	---	---	---	--

STATION 2	→	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	CODE
-----------	---	----------------------	----------------------	----------------------	----------------------	------

ENTER

1

2

3

TEACHER DIRECTION

- 1 Print the reading passage found on [pages 5-6](#) for EACH (front and back).
- 2 Print the answer recording sheet on [page 12](#) for each student group of students.

RECAP: Print pages 5, 6, and 12 for students.

STATION

5

BLUE

THE MISSION

You have been assigned a top-secret mission of utmost importance. A notorious thief has stolen precious gems from a prominent lady, and intelligence reports suggest that they are hidden in a heavily guarded secret vault. In the bustling city of Oakville, Lady Victoria was renowned for her extraordinary

ABOUT THIS ACTIVITY

The reading passage in this packet allows students to practice their comprehension skills after reading the passage. Students will be searching for evidence. Each station includes a question that will reveal a letter clue.

	OVERVIEW
READING PASSAGE	Students will use the reading passage at each station seeking answers and text evidence.
STATION 1	Students will determine the missing word in the paragraph to reveal a 4-digit code.
STATION 2	Students will number the paragraphs in the reading passage to determine where the missing words can be found (paragraph number). After eliminating the incorrect numbers, a 4-digit code will be revealed.
STATION 3	Students will read each statement and determine if it is true or false.

OVERVIEW

READING PASSAGE

Students will use the reading passage at each station seeking answers and text evidence.

STATION 1

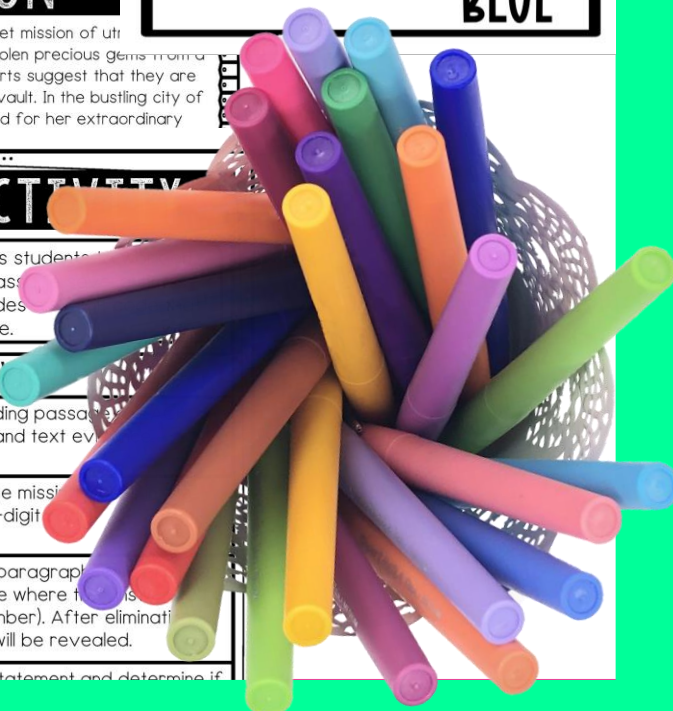
Students will determine the missing word in the paragraph to reveal a 4-digit code.

STATION 2

Students will number the paragraphs in the reading passage to determine where the missing words can be found (paragraph number). After eliminating the incorrect numbers, a 4-digit code will be revealed.

STATION 3

Students will read each statement and determine if it is true or false.



5 STATIONS

STATION 5: MULTIPLE CHOICE

Answer each multiple-choice question below. Then, count how many times you used each letter answer (ABCD) to reveal the code. Letters may be used more than once or not at all. If an option is not used, put an X in that box on your answer sheet.

1. What are the two main phases of the chromosomal phase of the cell cycle?

A. Monochromatic
B. Chromatids
C. Autotrophic
D. None of the above

2. Meiosis occurs in which phase of the cell cycle?

A. 4
B. 6
C. 8
D. 10

3. Mitosis takes place in which phase of the cell cycle?

A. Somatic
B. Chordata
C. Gamete
D. None of the above

Count how many times you used each letter answer to determine the 4-digit code and record it on your answer sheet.

STATION 4: COMBINATION

Use your reading passage to determine the combination to the 4-digit lock for this station. 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. There is room on your answer sheet to do the math.

1. The LAST number of the lock is the year Walter was born.

2. The SECOND number of the lock is the number of chromosomes in a human cell.

3. The number of mitoses that occur in a human cell is 2.

4. The lock is a combination lock.

5. Once you determine the 4-digit code, decide if it uses all EVEN #s, all ODD #s or a combination of both.

ANSWER RECORDING SHEET

Record your answers for each station on this sheet. Then, use the directions below to determine final 4-digit ALPHA code. Ex: HBDR

STATION	STATION CODES	LETTER
STATION 1	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
STATION 2	A B C D E F	
STATION 3	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
STATION 4	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
STATION 5	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	

Do your math in this area:

1 2 3 4 5 6

A# B# C# D#

STATION 2: PARAGRAPHS

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. Paragraph numbers MAY be used once or not at all. Follow the directions below to reveal the 4-digit code and letter clue.

A. Mitosis creates skin cells to replace old skin cells.

B. Chromosomes are structures that are found in DNA.

C. Prokaryotic cells do not have a nucleus.

D. The centrosomes are located at opposite ends of the cells, called centrioles.

E. When the cell divides, binary fission occurs.

F. Binary fission, mitosis, and meiosis are the three main types of cell division.

1. ELIMINATE the highest and lowest used paragraph numbers and record the remaining 4-digit code on your answer sheet. 2. Decide which paragraph number was NOT used as a CODE answer.

STATION 1: FILL IN THE BLANKS

Use your reading passage to determine the missing word in each paragraph below. Each missing word has a corresponding NUMBER. The 4-digit code for this station will be the NUMBER of each missing word in the order in which they appear in the paragraphs. Then, use the LETTER on your answer sheet to determine the 4-digit code.

1. prophase
2. telophase
3. diploid

4. chromosome
5. CNS
6. DNA

7. L
8. cyto
9. telek

During metaphase, the chromosomes are lined up in the center of the cell. The next phase is anaphase, in which the chromosomes are pulled apart. This process is called chromosomal separation. Finally, cytokinesis occurs and new daughter cells are formed. Each of the new daughter cells has its own nucleus. Then, the cell splits in two, it is known as telophase. The cells produced by mitosis are referred to as diploids because they have two sets of chromosomes.

Once you determine the 4-digit code, decide if it uses all EVEN #s, all ODD #s or a combination of both.

STATION 3: TRUE OR FALSE

Read each statement below and determine if it is true or false. If the statement is true, color the coin on YOUR answer sheet that corresponds with that question. If the statement is false, cross out that coin. Once you are finished coloring the coins, use the TRUE coin values to determine the 4-digit code. One digit clue is provided for you: 625, a 6 would be in the first box, a 2 would be in the second box.

A. 75
B. 25
C. 50
D. 100

A. The process of mitosis produces two identical daughter cells.

B. Meiosis occurs when a single cell produces four daughter cells instead of two.

C. Prokaryotic cells do not have a nucleus.

D. DNA is a double-stranded molecule.

E. Chromosomes are structures that are found in DNA.

F. The centrosomes are located at opposite ends of the cells, called centrioles.

G. Binary fission, mitosis, and meiosis are the three main types of cell division.

H. Eventually, cells become old and begin to die.

After shading the coins on your answer sheet, use the TRUE statements to get the final total.

ALL EVEN	ALL ODD	COMBO
B	H	M

275	320	3
G	D	

NO 2	NO 7	NO 4
L	C	W

STATIONS

ABOUT THIS ACTIVITY

The reading passage in this packet allows students to work on comprehension skills after reading the passage several times searching for evidence. Each station includes a 4-digit code that will reveal a letter clue.


OVERVIEW

READING PASSAGE	Students will use the reading passage at EACH station seeking answers and text evidence.
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 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 "ABCD" answer.
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. (This will increase completion time)

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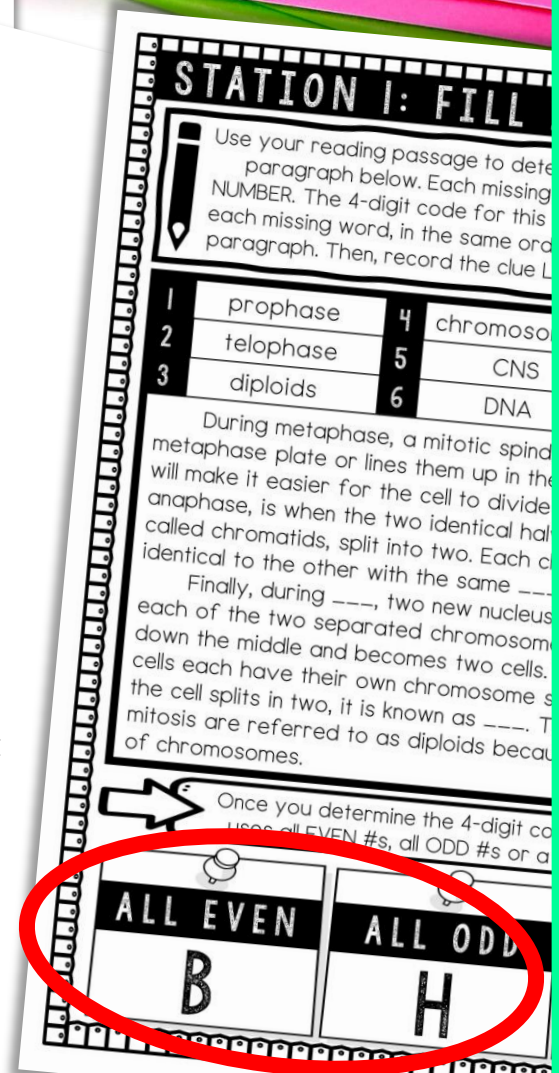
**STUDENTS WILL
USE THE SAME
READING
PASSAGE AT
EACH STATION
SEEKING
ANSWERS AND
TEXT EVIDENCE.**

HOW IT WORKS



ENGAGING READING
COMPREHENSION PRACTICE!

- 1 Students work individually (or in pairs) and visit 5 stations, answer questions, decipher a 4-digit code at each station and grab a "letter" clue for the final alpha code.
- 2 Students will answer the questions (found directly in the passage) on their own recording sheet. Students will have to revisit their reading passage several times at EACH station skimming for answers.



STATION 1: FILL

Use your reading passage to determine the missing word in the paragraph below. Each missing word is represented by a NUMBER. The 4-digit code for this station is _____. Write each missing word, in the same order as the numbers, in the same order as the paragraph. Then, record the clue letter.

1	prophase	4	chromoso
2	telophase	5	CNS
3	diploids	6	DNA

During metaphase, a mitotic spindle forms. The spindle fibers attach to the centromeres and pull the chromosomes toward the metaphase plate or lines them up in the middle of the cell. This makes it easier for the cell to divide. Anaphase, is when the two identical halves called chromatids, split into two. Each chromatid is identical to the other with the same _____. Finally, during ____, two new nuclei form. Each of the two separated chromosomes divides down the middle and becomes two cells. Each cell has its own chromosomes. When the cell splits in two, it is known as _____. The process of mitosis are referred to as diploids because of chromosomes.

Once you determine the 4-digit code, use all EVEN #s, all ODD #s or a combination of both.

ALL EVEN	ALL ODD
B	H

BENEFITS

- ✓ STATIONS AND MOVEMENT
- ✓ CLOSE READING
- ✓ COMPREHENSION SKILLS
- ✓ SECRET CODES
- ✓ CITING EVIDENCE
- ✓ CRITICAL THINKING
- ✓ PRINT AND GO
- ✓ ACTIVE LEARNING
- ✓ CROSS-CURRICULAR
- ✓ HIGHLY ENGAGING
- ✓ NO LOCKS NEEDED
- ✓ NO SILLY ENVELOPES TO STUFF
- ✓ NO ODD SHAPES TO CUT OUT



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

USE FOR:



ANTICIPATORY SETS



UNIT REVIEW



EARLY FINISHERS



STATIONS



REWARD ACTIVITY



CENTERS



SUB PLANS



PARTNER WORK



ENRICHMENT

