

MUSCULAR SYSTEM

CUBE CODE

strongest muscle (size) in the body?
A. Latin
B. French
C. Greek
D. Norse

How many muscles does the tongue have?
A. 1
B. 5
C. 8
D. 12

What are smooth muscles known as?
A. Striated muscles
B. Cardiac muscles
C. Striped muscles
D. Visceral muscles

What percent of your body is muscle weight?
A. 15%
B. 25%
C. 50%
D. 70%

The number of chambers the heart consists of is MINUS 4.

The FIRST number of the lock is the number of muscles the muscular system is composed of MINUS 591.

The THIRD number of the lock is the number of main types of muscles MINUS 2.

4	arm	7	striated
5	five	8	leg
6	seven	9	autonomic

Often muscles work in pairs. For instance, the bicep and tricep muscles work together. The bicep contracts, and the tricep relaxes to move the arm. Another example is the quadricep muscles. The quadricep muscles work together to move the leg forward, the bicep works to pull the arm forward, the tricep works to push the arm forward, and the quadricep works to pull the leg forward.

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. A 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 Proteins and chemicals in the body give them energy to either contract, tighten or relax.

B The muscle that makes up the heart is called cardiac muscle or myocardium.

C A group of muscles that work together to perform a specific function are called a muscle group.

D The vertebral column is made up of 26 vertebrae.

E The weight of the muscular system is about 50% of the total body weight.

F The tendons are the fibrous cords that connect muscles to bones.

ELIMINATE

A 75

B 25

C 50

D 100

E 100

F 75

G 50

H 25

I 100

J 75

K 50

L 25

M 100

N 75

O 50

P 25

Q 100

R 75

S 50

T 25

U 100

V 75

W 50

X 25

Y 100

Z 75

A 75

B 25

C 50

D 100

E 100

F 75

G 50

H 25

I 100

J 75

K 50

L 25

M 100

N 75

O 50

P 25

Q 100

R 75

S 50

T 25

U 100

V 75

W 50

X 25

Y 100

Z 75

4 DIGIT CODE

MUSCULAR SYSTEM

Every system in the human body is important to help us live and function, and the muscular system is no exception. The muscular system is composed (made up) of more than 600 muscles.

Muscles are what we use to move around. They are located all over the body underneath the skin. Some muscles work without a person thinking, such as the heart that pumps blood, while others we have to actively move such as the leg muscles when walking across the street. The word muscle comes from the Latin word *musculus*, meaning "little mouse."

Muscles work when the brain sends signals to them to move. Proteins and chemicals in the body give them energy to either contract, tighten or relax. For example, to pick up a pencil, the brain sends signals to the muscles in the hand to contract and pull the pencil towards the hand.



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.

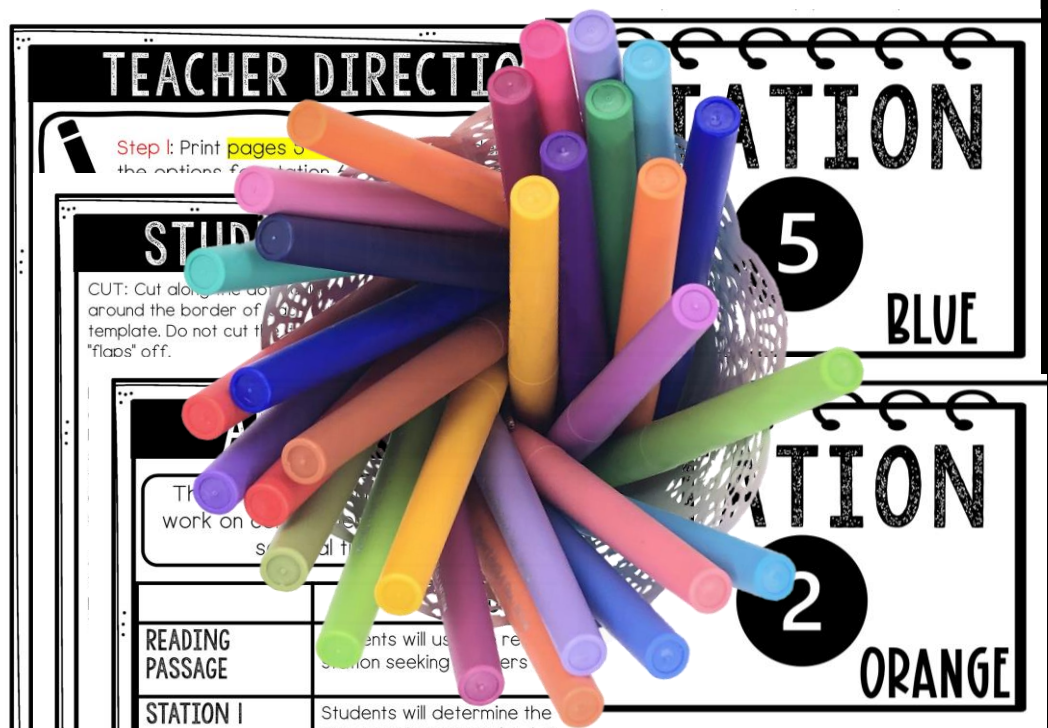
STATION

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.

STATION
1

RED

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
6

SUPPORTING DETAIL #1



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 number of muscles in the face that

STATION
4

GREEN

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.

STATION
5

BLUE

What is the strongest muscle (based on size) in the body?

- A. Masseter
- B. Stapedius
- C. Multifidus
- D. Hamstring

What are the chambers of the heart?

- A. Ventricles
- B. Myocardium
- C. Atria
- D. Aorta

What percentage of the body's muscles are striated?

- A. 15%
- B. 25%
- C. 50%
- D. 70%

The word muscle comes from the Latin word musculus.

A. Latin

- A. Striated muscles
- B. Cardiac muscles
- C. Striped muscles
- D. Visceral muscles

A B C D

STATION 3:

Read each statement below and determine if it is true or false. Write the letter of the correct answer in the box. The first letter of the code is the first letter of the first true statement.

STATION
3

YELLOW

A
75

B
25

C
50

D
100

- C. The cardiac muscle has the voluntary control of the heart.
- D. The least used muscles in the human body are called the stapedius muscles.
- E. Muscle makes up about half of the total weight of the human body.
- F. The deltoid muscle is found in the arm.
- G. The largest muscle is the trapezius.
- H. Muscles are found everywhere in the body including places like the stomach.

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 not found in the paragraph. Only ODD numbers are allowed. The final code is the sum of the remaining numbers.

STATION
2

ORANGE

A. Proton

B. Neutron

C. Electron

D. Positron

E. Photon

F. Neutrino

G. Muon

H. Tauon

I. Photon

J. Neutrino

K. Muon

L. Tauon

The cardiac muscle is found in the heart.

A group of cells known as the pacemaker controls the heartbeat.

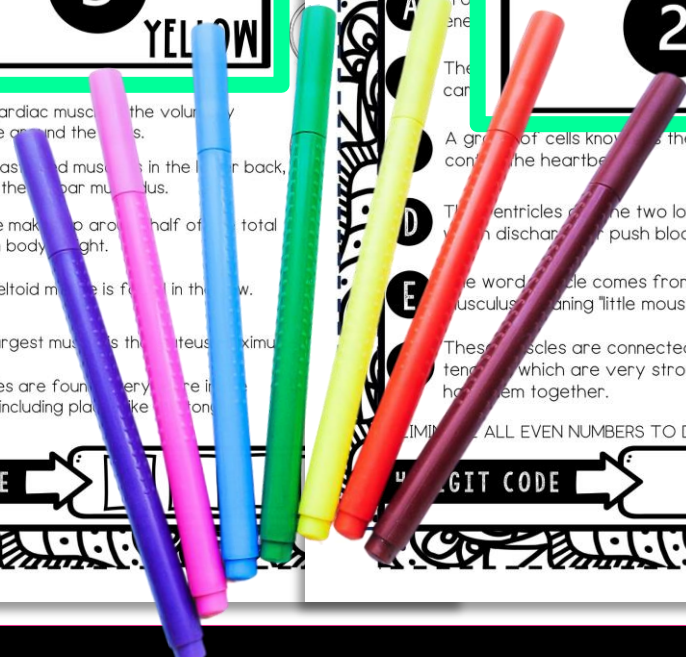
The ventricles are the two lower chambers of the heart that push blood out.

The word muscle comes from the Latin word musculus meaning "little mouse."

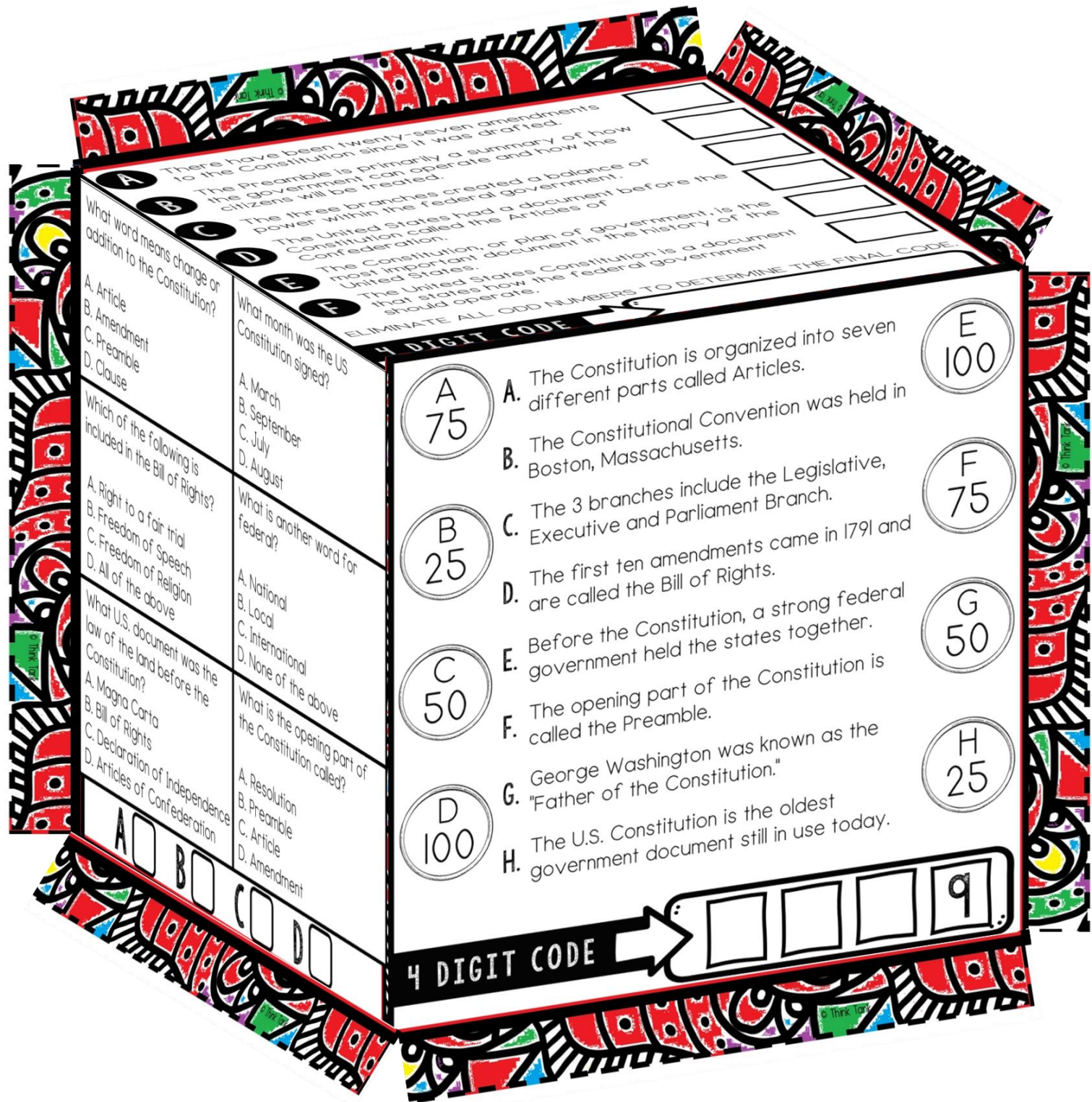
These muscles are connected to the bones by tendons, which are very strong tissues that hold them together.

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 you are finished add the TOTAL of ALL TRUE codes has been provided for you. If the total is 75, the 1 in the first box, the 2 in the second box and the 0 in the third box.

A. The hamstring and the quadriceps muscles work together to kick a ball.

B. Skeletal muscles are also called cardiac muscle.

C. The cardiac muscle is the voluntary muscle around the lungs.

D. The least used muscle is in the lower back called the lumbar multifidus.

E. Muscle makes up around half of human body weight.

F. The deltoid muscle is found in the shoulder.

G. The largest muscle is the gluteus maximus.

H. Muscles are found everywhere in the human body including places like the tongue.

4 DIGIT CODE

75

25

50

100

4

0

0

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

