

## **Body Systems and Human Anatomy Escape Room**

### **Introduction**

Escape rooms have become popular in mainstream gaming communities but the same concept can be applied to the classroom. An escape room is essentially just a series of puzzles connected by a theme. Each puzzle leads to the next and in some cases secrets and surprises can be unlocked along the way. Escape games connected to curriculum provide learning opportunities that are fun and leave a lasting impression. They engage students in problem solving experiences and encourage communication and collaboration. The escape room scenario can be the perfect way to end a unit and can allow students to showcase what they have learned. They also require teamwork which enables those students who maybe aren't as comfortable with the content to learn from their peers and still participate in the culminating activity. It is like an open book test without the pressure, in fact, the students won't even realize they are being assessed on unit content!

### **Escape Room Necessities**

1. Boxes and Locks
  - You need at least three boxes to make it fun.
  - Vary the locks for interest sake. There are many different styles of locks available including combination, alphabet locks, directional locks etc.
2. There needs to be a purpose
  - The purpose of each escape activity should come from learned content and should explore content the students have already learned.
  - Escape rooms are a good culminating activity.
3. The escape challenge should start with a story that includes a problem that needs to be solved and ties each activity together.
  - Once you get really good at creating the overarching theme or story you can weave relevant clues into each activity, that then lead to more clues.
  - Remember to keep one or two tasks relatively simple so students build confidence and are motivated to continue.
4. Now you are ready to organize your clues and activities
  - Think about how all of the students can be involved.
  - Do the activities yourself before the students attempt to work out any bugs.

5. Create a buzz
  - Let students anticipate what is to come.
6. Reflection
  - As with any culminating activity it is important to build in reflection time.

### **Escape Room In Class Activity**

#### **Script**

Dry ice in a beaker is bubbling away on the counter with the mist floating onto the countertop and dissipating into the room. Next to the beaker is a letter (one for each group?)  
The letter reads.....

*A HA!! Now I have got your attention haven't I?*

*You students think you are soooo smart and you have all been doing incredible work lately on human body systems. But there is only room in this school for ONE genius and that genius is ME! So, I have devised a plan to get rid of you ALL!*

*As you have been reading this letter you have been breathing in the toxic fumes from this evil mixture I placed on the counter. These toxic fumes that have entered your body through your respiratory system will soon cause havoc with ALL your body systems. In **40** minutes, your circulatory system will start shutting down, your nervous system will go haywire and your muscular system will start twitching. HOWEVER, because I am not completely evil and because I so value intelligence, I have devised a series of challenges that will lead you to an antidote if you are successful in completing them. So, you have been divided into teams of **5**, work together and see if you can help each other out of this predicament. If you can't complete the challenges in **40** minutes then you will PERISH.*

*Good luck,*

*Secret Evil Genius*

#### **Teacher Notes**

The combination to the first set of locks is 40 - 5 - 40, the numbers that are in bold print in the introductory letter.

In the first box is Activity 1

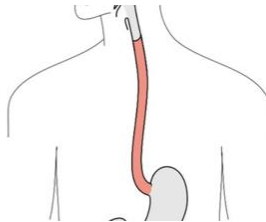
### Activity 1:

Inside the box is a bunch of laminated cut outs of different parts of the digestive system. On the back of every second laminated card is a number that corresponds with the next combination lock. If students get the body parts in the right order then the numbers on the back of the cards, from top to bottom, in order will open the next box.

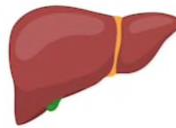
**MOUTH**



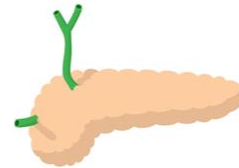
**ESOPHAGUS**



**LIVER**



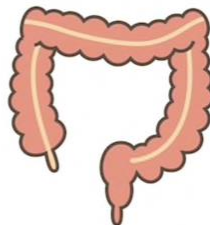
**PANCREAS**



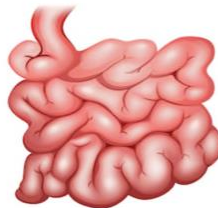
**STOMACH**



**LARGE  
INTESTINE**



**SMALL  
INTESTINE**



**ANUS**



### Teacher Notes

The order of the digestive system body parts is as follows:

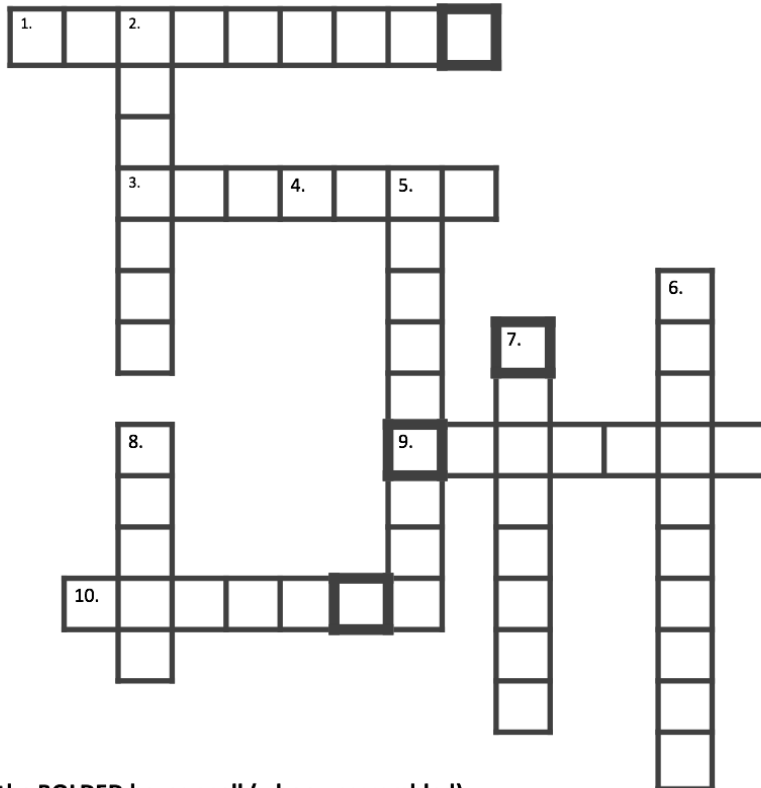
- 1) Mouth
- 2) Esophagus
- 3) Stomach
- 4) Liver
- 5) Pancreas
- 6) Small intestine
- 7) Large Intestine
- 8) Anus

**Activity 2:**

In this box is a Human Anatomy Crossword Puzzle.

The four letters that are bolded spell a word that when unscrambled opens the next alphabet lock.

**HUMAN ANATOMY CROSSWORD**



**ACROSS**

- 1) Bundle of nerve fibers that runs down from the brain.
- 3) Two thin tube that take pee from the kidneys to the bladder
- 9) Female reproductive organs responsible for producing eggs
- 10) Organs that filter waste materials out of the blood and pass them out of the body as urine

**DOWN**

- 2) Hormone that lowers the level of glucose in the blood
- 4) Male sex glands where sperm and hormones are made
- 5) A cell that receives a stimulus and activates an associated nerve to send a message to the brain
- 6) A substance released in the body of a person who is feeling a strong emotion of excitement or fear
- 7) A organ into which urine is stored until it leaves the body
- 8) Control center for the body

The letters of the BOLDDED boxes spell (when unscrambled) \_\_\_\_\_



# What Body System am I?

- 1) I take care of the food and send the nutrients into the blood
- 2) I am involved in blood flow
- 3) I allow you to breath
- 4) I allow the continuation of generations of people
- 5) I support and protect your soft body parts
- 6) I take away dead cells
- 7) I am attached to your bones and allow your body to move
- 8) I control the hormones in your body
- 9) I cover your body and make sure too much water doesn't leave the body
- 10) I control thoughts and feelings
- 11) I ensure there is the right amount of liquid in the body

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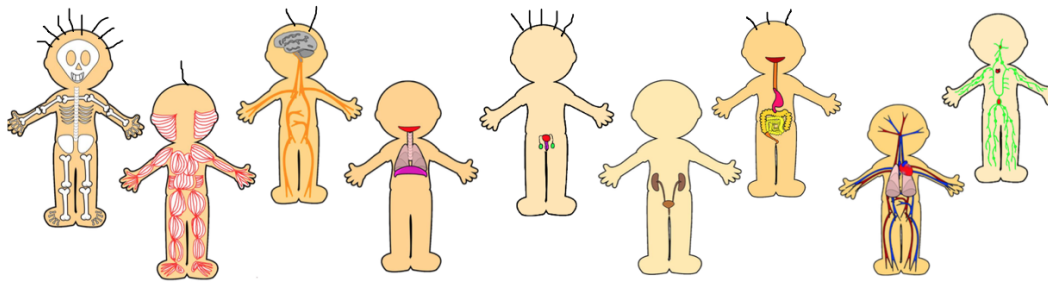
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## BODY SYSTEMS CHOICES

- Circulatory**
- Digestive**
- Endocrine**
- Excretory**
- Integumentary**
- Lymphatic**
- Muscular**
- Limbic**
- Reproductive**
- Respiratory**
- Skeletal**

## Teacher Notes

The pictures of the body systems should be numbered and placed around the room. On top of five of the pictures you should draw tufts of hair. The combination for the next lock corresponds to the number of tufts of hair on the head of each of the body system drawings.

For example:

1. Digestive system - 3 tufts of hair
2. Circulatory system - no tufts of hair
3. Respiratory system - no tufts of hair
4. Reproductive system - 5 tufts of hair
5. Skeletal system - 8 tufts of hair
6. Excretory system - no tufts of hair
7. Muscular system - 1 tuft of hair
8. Endocrine system - no tufts of hair
9. Integumentary system - no tufts of hair
10. Limbic system - 2 tufts of hair
11. Lymphatic system - no tufts of hair

So the combination that opens the next lock would be 3 - 5 - 8 - 1 - 2

Students might struggle with this clue. You can prompt them to read the note from the Secret Evil Genius again, focussing their attention on the clues she might have left them in the letter.

At this point there are only two boxes left. One with one more clue in it which will lead the students to open the final box with the antidote (lollipops) inside.

## Activity #4

Inside box four is a puzzle. The students must cut out the squares and rearrange them so that the touching sides match. For example; "Mouth" shares a side with "Where digestion begins" and "Lung Part" shares a side with "Bronchioles".

Hint: not all sides will have a match

Digestive System Puzzle

Directions: Cut out the squares and rearrange them so that the touching sides match. (The squares will fit together physically showing the combination for a directional lock)

Example: 'MOUTH' shares a side with 'WHERE DIGESTION BEGINS'

HINT: not all sides will have a match

CELLS	LARGE INTESTINE	HEART	UTERUS
OXYGENATE	MOLARS VANE TUBE ↓	KIDNEY DIGESTION BEGINS HERE	LUNG PART ATRIVM ←
VEIN	MAKES BILE	BLADDER	PANCREAS
COLON	MOVES BLOOD TOWARD HEART	DIGESTIVE ENZYME	CAPILLARY
BRAIN	ENZYME CARTILAGE	CRANIUM BLOOD CELL PRODUCTION ←	CARDIAL PLASMA ↑
LARYNX	LEVERS + JOINTS	SPINE	STOMACH
VOICE BOX	STORES URINE	HYDROCHLORIC ACID	LIVER
SPINAL CHORD	ENDOCRINE ESOPHAGUS ←	SKELETAL SYSTEM LARGE INTESTINE ↑	CONNECTIVE TISSUE MUSCLE TISSUE TYPE ↓
ABSORBS WATER	ARTERIES	ABSORBS MINERALS + NUTRIENTS	ADORTA
SMALL INTESTINE	SKIN	BONES	TAIL BONE
BRONCHIOLES	URETHRA PROTECTS BRAIN	START →	CEREBRUM
PEPSIN	1 CHAMBERS	STORES WASTE BREATHING	BLOOD COMPONENT
		NOURISH UNBORN BABY	SWEATS

Teacher Notes

The squares of the puzzle will fit together physically showing the combination for a directional lock.



## **Final Box**

Inside the final box is one last note from the Secret Evil Genius.

*You have foiled me this time! As promised here is the antidote to the toxic fumes that you have been breathing in this entire time. Until next time my little scientists.....*

*Wha-ha-ha-ha-ha!*

## **Resources:**

Anatomy & Physiology : Digestive System Puzzle. (n.d.). Retrieved from <https://www.teacherspayteachers.com/Product/Anatomy-Physiology-Digestive-System-Puzzle-4283810>

Human Body Systems Riddles. (n.d.). Retrieved from <https://www.teacherspayteachers.com/Product/Human-Body-Systems-Riddles-1595264>

WeAreTeachers Staff on March 21, 2019. contest-social .share-links svg. (2019, March 25). So You Want to Build a Classroom Escape Room... Retrieved from <https://www.weareteachers.com/build-a-classroom-escape-room-lesson/>

Worksheet Generator. (n.d.). Retrieved from <https://www.education.com/worksheet-generator/reading/crossword-puzzle/>