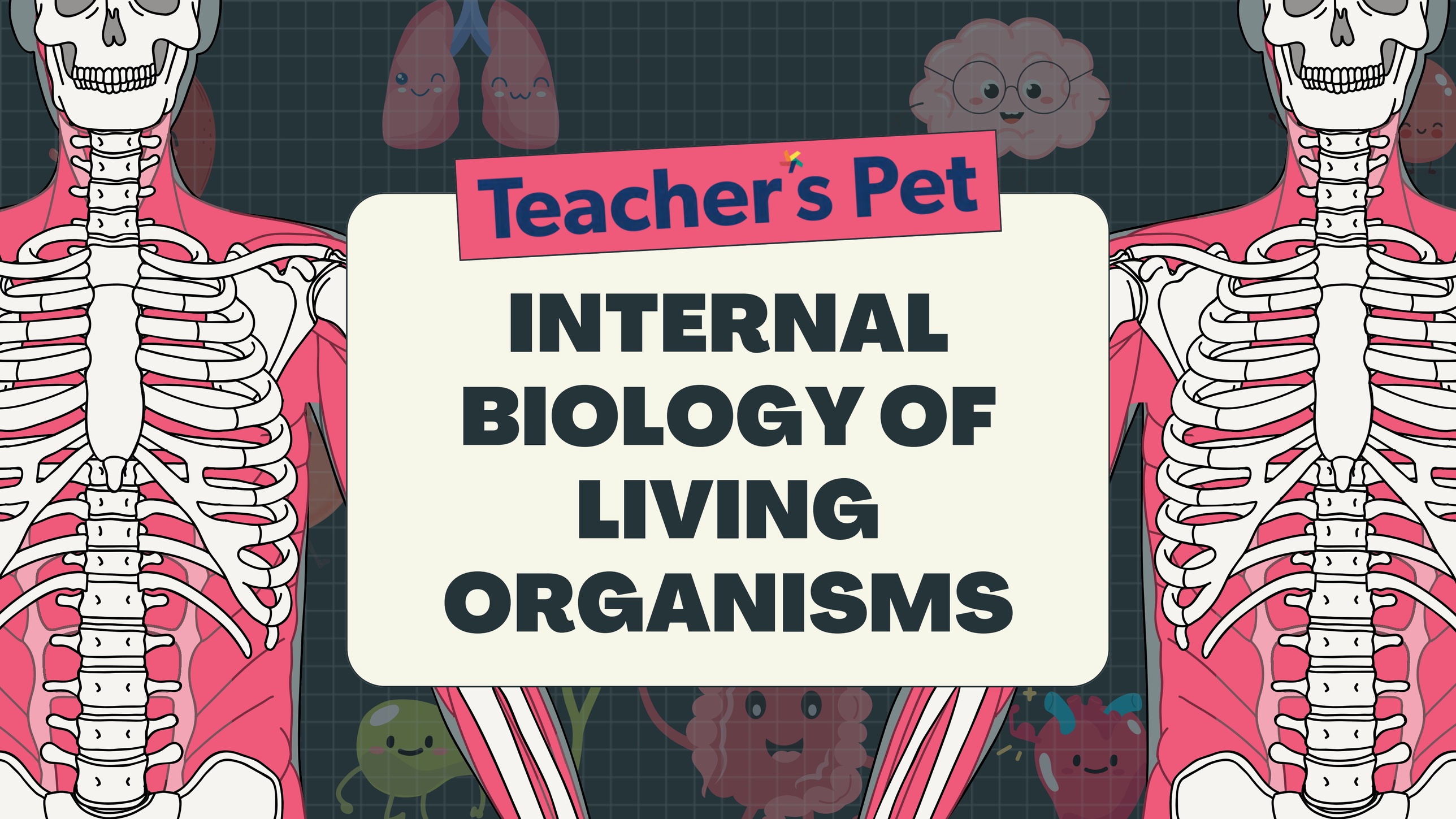
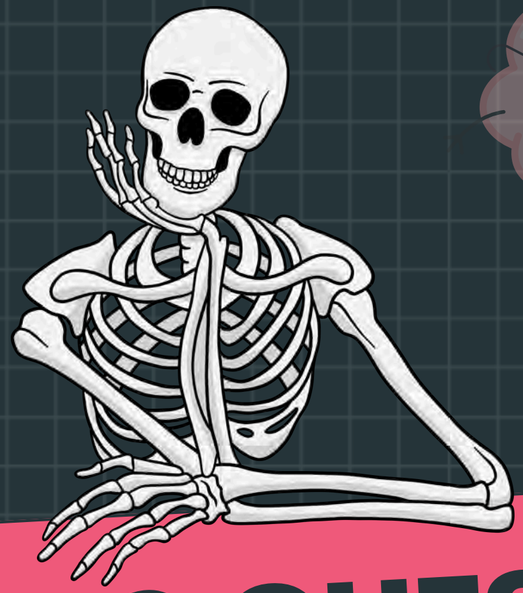
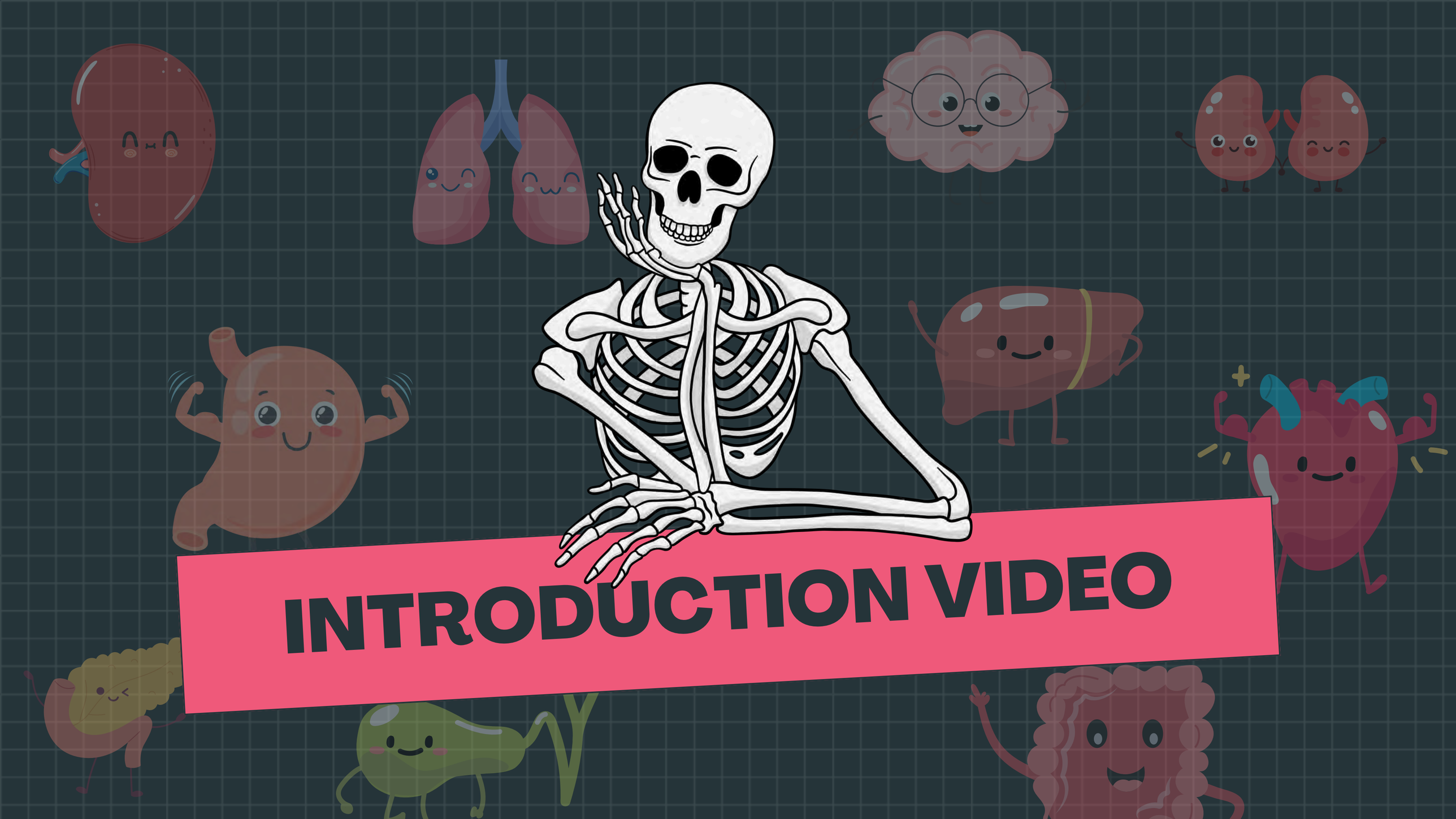
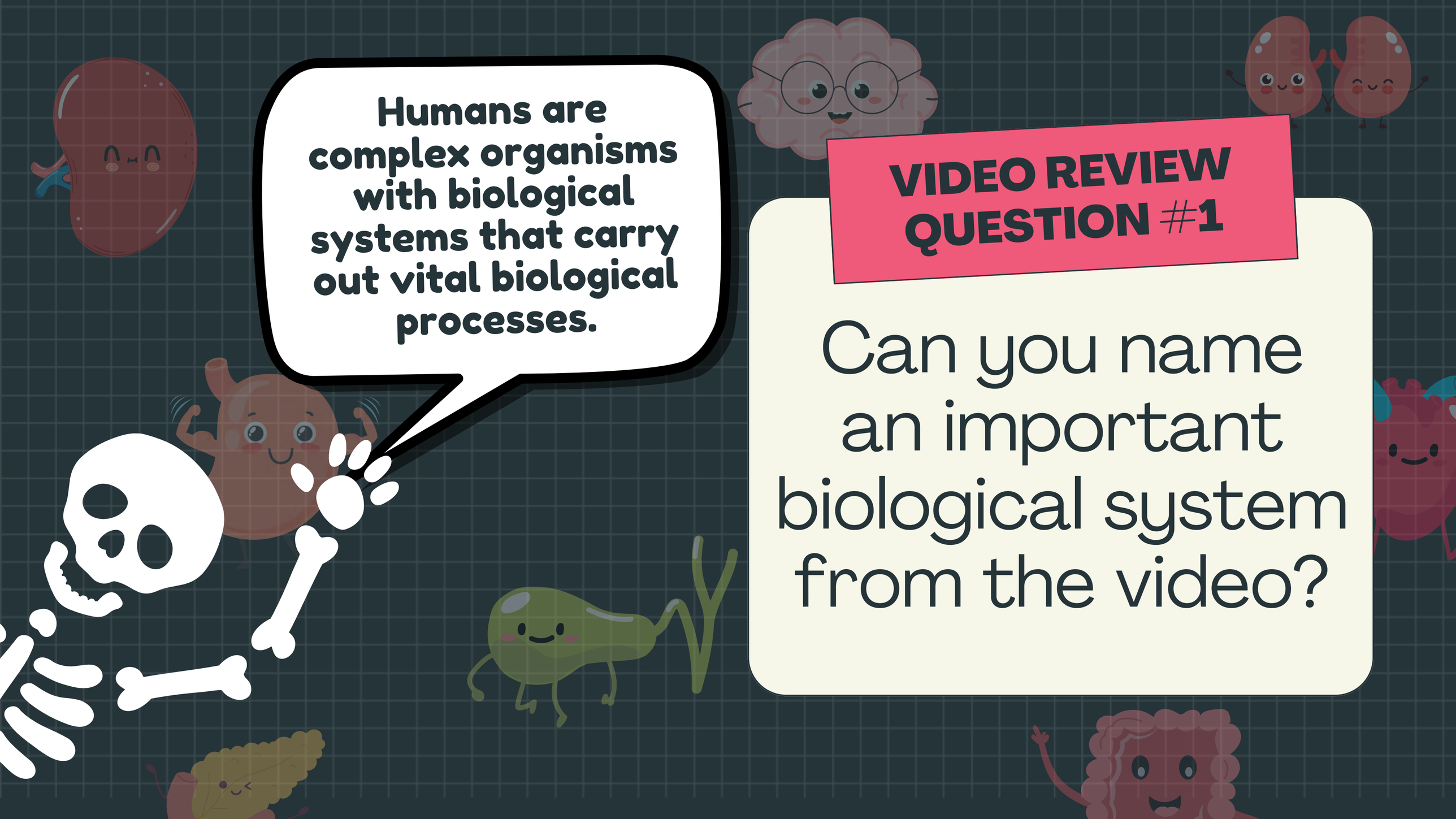

Teacher's Pet
INTERNAL BIOLOGY OF LIVING ORGANISMS



GUIDING QUESTION

HOW ARE ORGANISMS SUPPORTED BY VITAL BIOLOGICAL PROCESSES AND SYSTEMS?


INTRODUCTION VIDEO

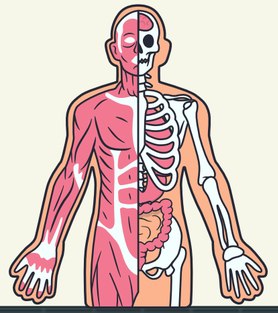

Humans are complex organisms with biological systems that carry out vital biological processes.
VIDEO REVIEW QUESTION #1
Can you name an important biological system from the video?

VIDEO REVIEW QUESTION # 1

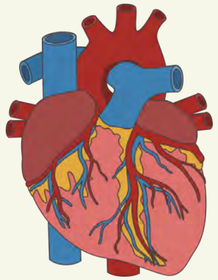
Can you name an important biological system from the video?

1. Digestive System

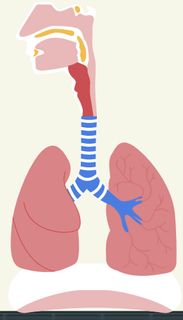
2. Musculoskeletal System



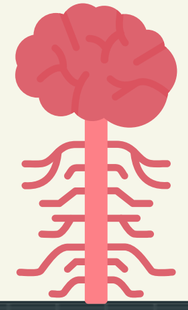
3. Circulatory System



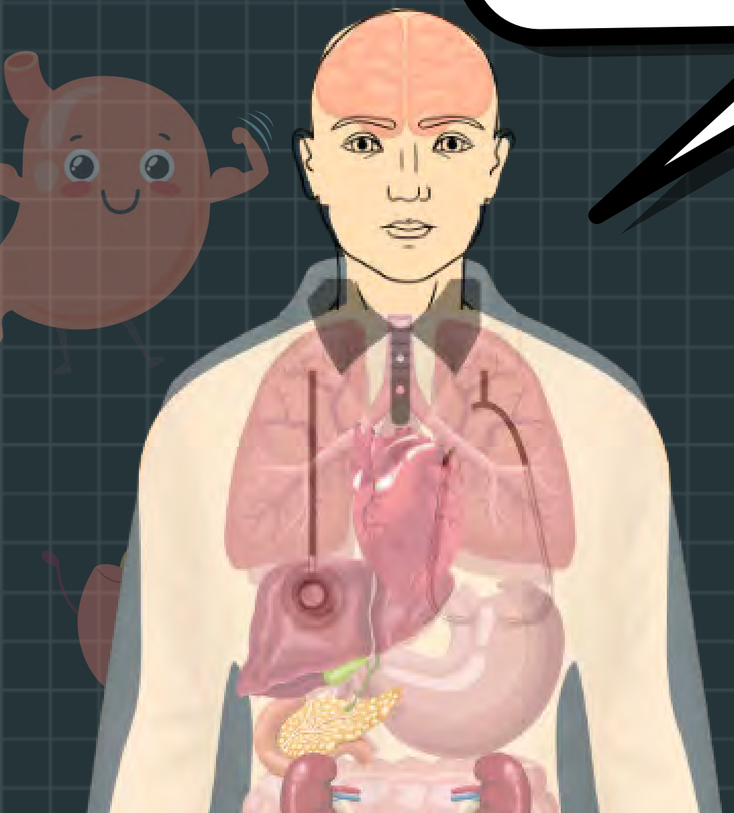
4. Respiratory System



5. Nervous System



There are 5 vital biological processes of complex organisms.



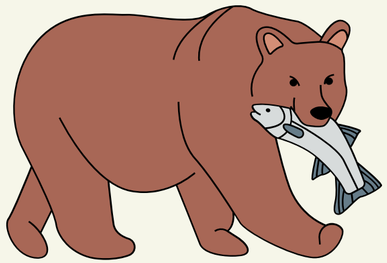
VIDEO REVIEW QUESTION #2

Can you name a vital biological process from the video?

VIDEO REVIEW QUESTION # 2

Can you name a vital biological process from the video?

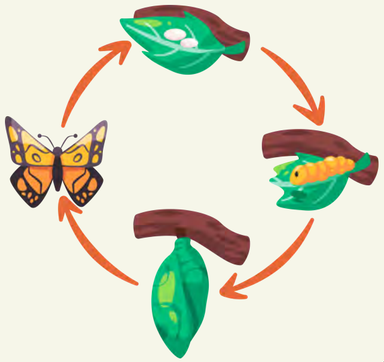
1. Movement



2. Nutrition

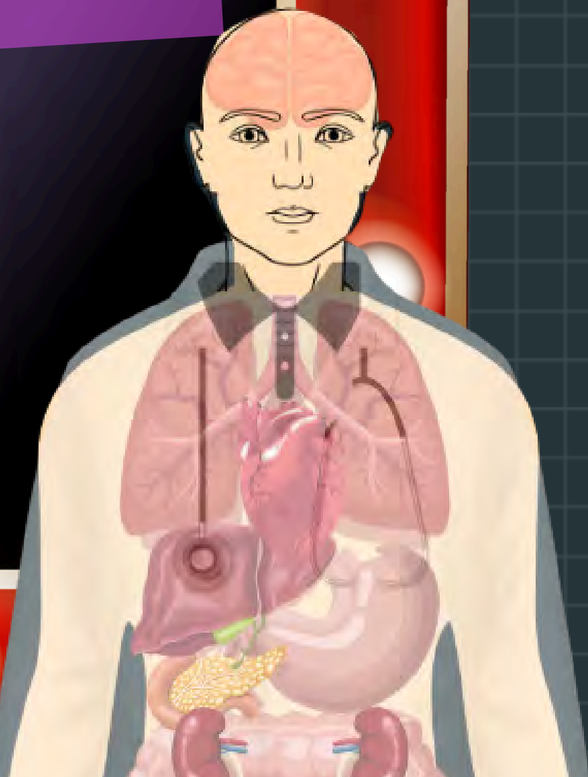
3. Respiration

4. Growth



5. Reproduction

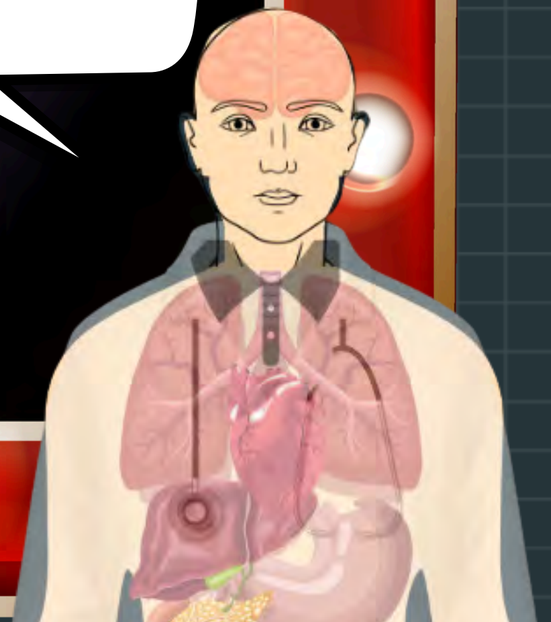
ANATOMY ADVENTURES TRIVIA GAME

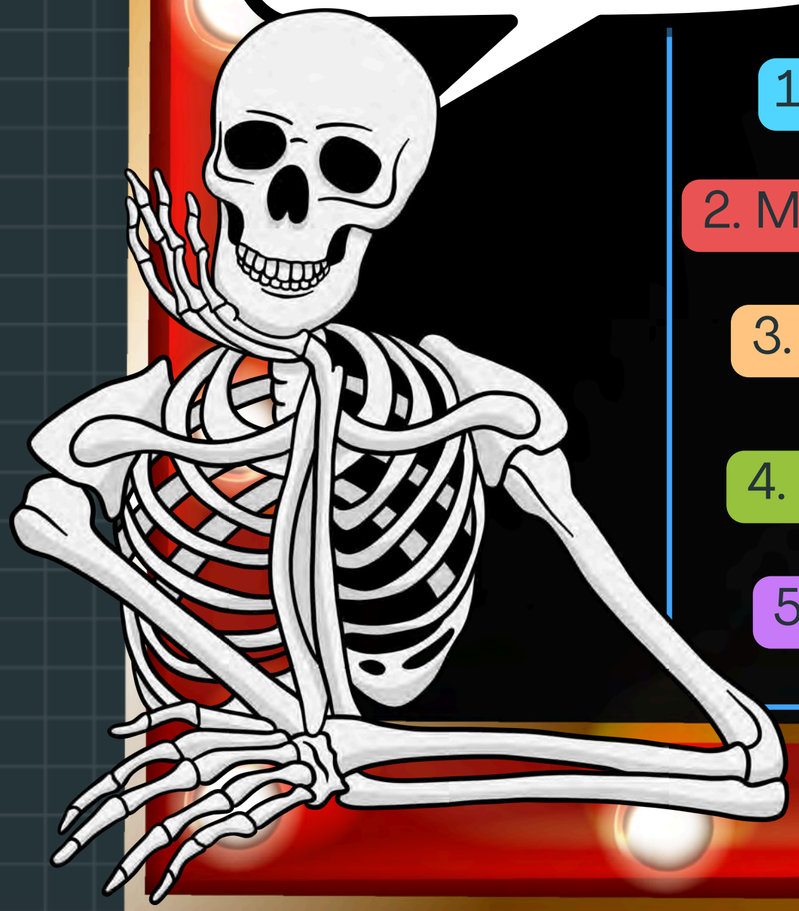


TRIVIA RULES

- Split into 4 teams.
- 30 seconds to discuss as a group and chose an answer.
- One student will be chosen to share the group's answer & why they chose that answer.
- Your answer will not count if you call out.

Be a good sport!
and
have FUN!





When answering, you must connect biological systems to biological processes.

BIOLOGICAL SYSTEMS

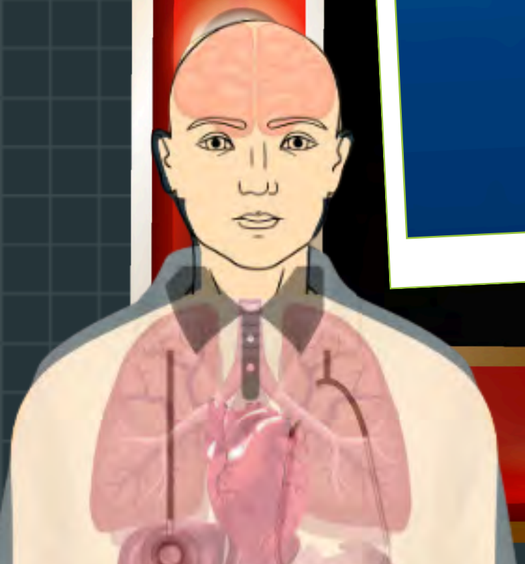
1. Digestive system
2. Musculoskeletal System
3. Circulatory System
4. Respiratory System
5. Nervous System

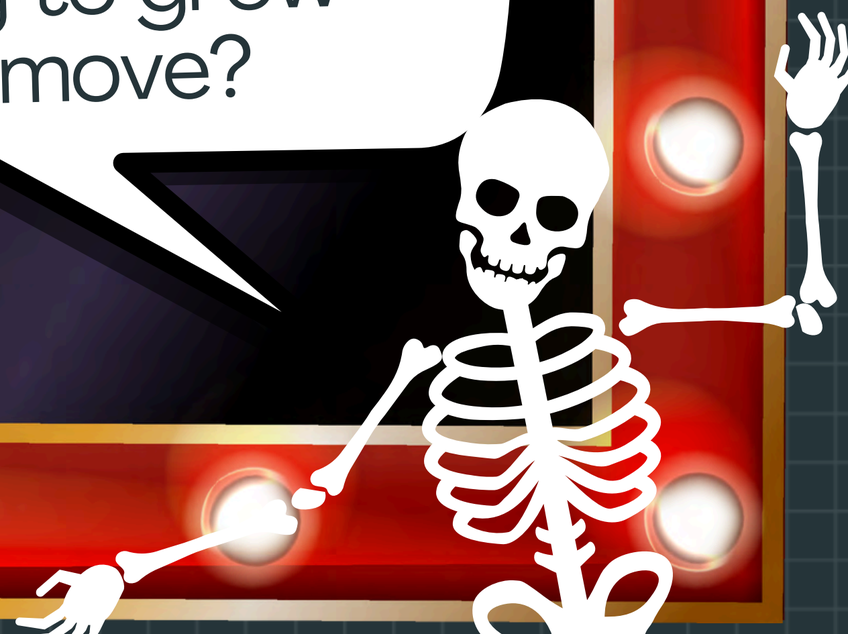
BIOLOGICAL PROCESSES

1. Movement
2. Nutrition
3. Respiration
4. Growth
5. Reproduction

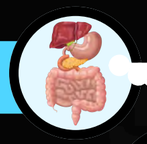
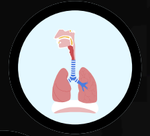
QUESTION # 1

Which system is MOST responsible for a blue whale's nutrition, providing energy to grow and move?





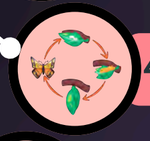
BIOLOGICAL SYSTEMS

1. Digestive system 
2. Musculoskeletal System 
3. Circulatory System 
4. Respiratory System 
5. Nervous System 

BIOLOGICAL PROCESSES


1. Movement

2. Nutrition

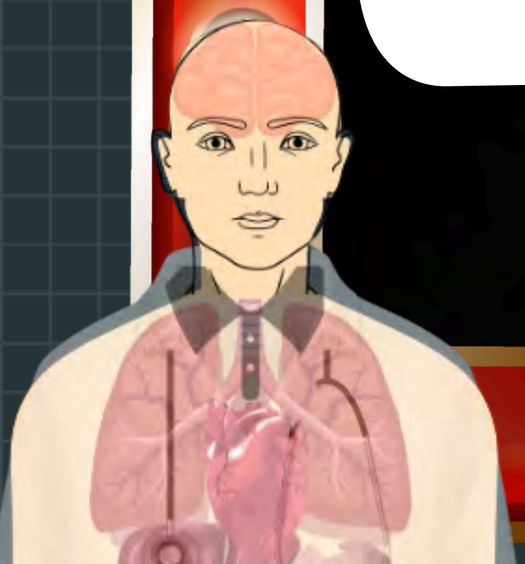
3. Respiration

4. Growth

5. Reproduction

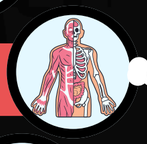
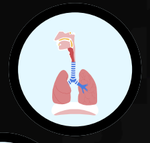
Let's connect biological systems to biological processes.

QUESTION # 2

Which system helps a dinosaur the MOST to move fast and grow so big?



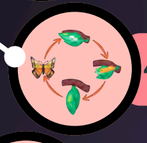
BIOLOGICAL SYSTEMS

1. Digestive system 
2. Musculoskeletal System 
3. Circulatory System 
4. Respiratory System 
5. Nervous System 

BIOLOGICAL PROCESSES


1. Movement

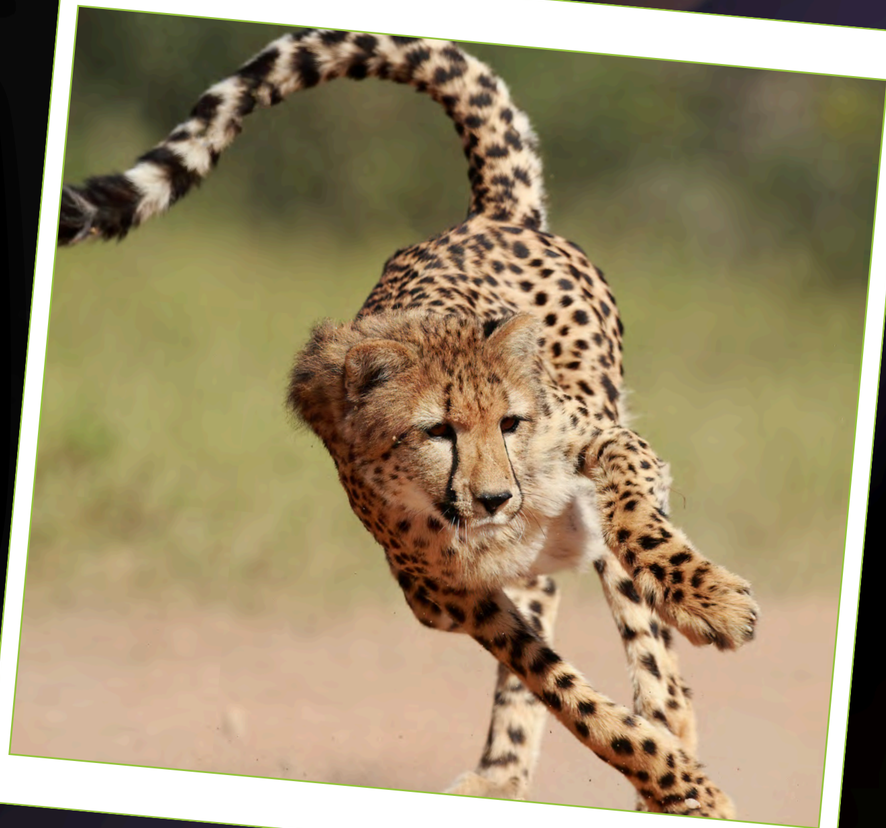
2. Nutrition

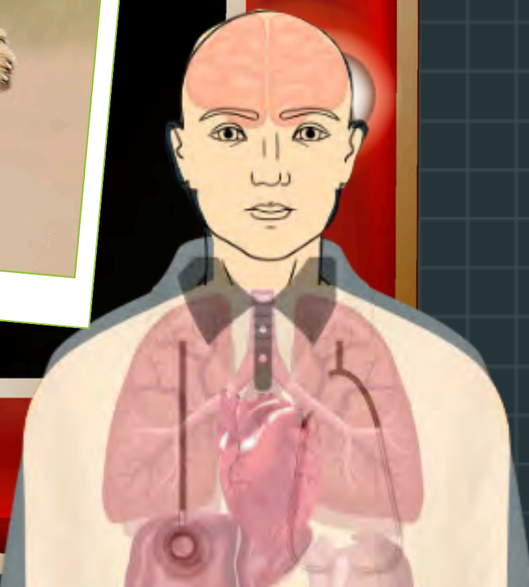
3. Respiration

4. Growth

5. Reproduction

QUESTION # 3

Which 3 systems help a cheetah pump blood and breath oxygen while she runs and grows?



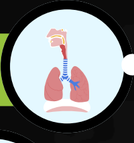


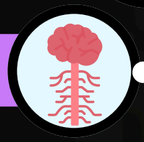
BIOLOGICAL SYSTEMS

1. Digestive system 

2. Musculoskeletal System 

3. Circulatory System 

4. Respiratory System 

5. Nervous System 

BIOLOGICAL PROCESSES


1. Movement


2. Nutrition

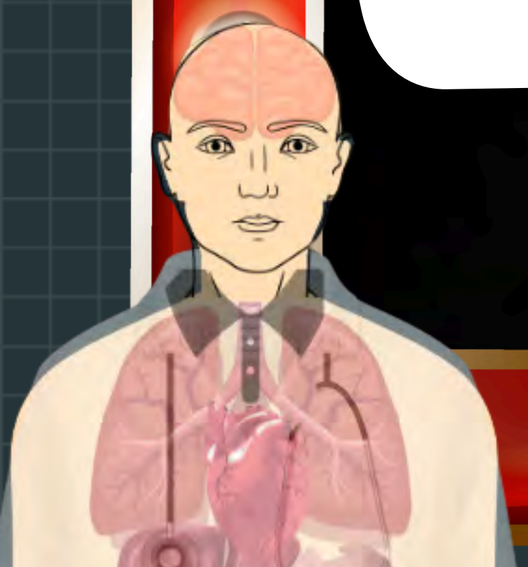

3. Respiration


4. Growth

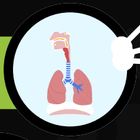

5. Reproduction

QUESTION # 4

Which system allows butterflies to get oxygen while they grow and fly?



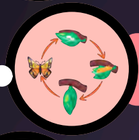
BIOLOGICAL SYSTEMS

1. Digestive system 
2. Musculoskeletal System 
3. Circulatory System 
4. Respiratory System 
5. Nervous System 

BIOLOGICAL PROCESSES


1. Movement

2. Nutrition

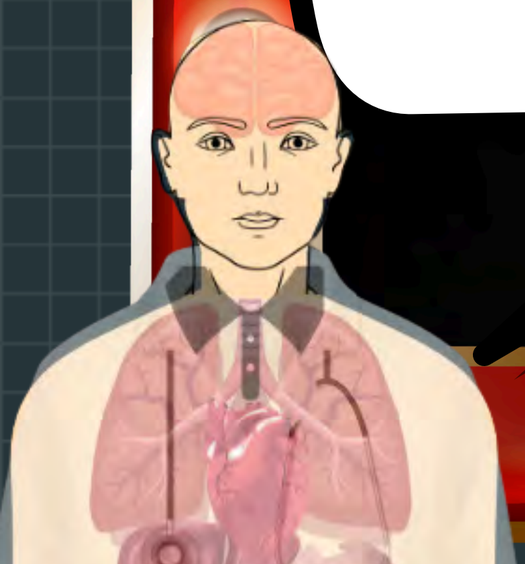
3. Respiration

4. Growth

5. Reproduction

FUN FACT!

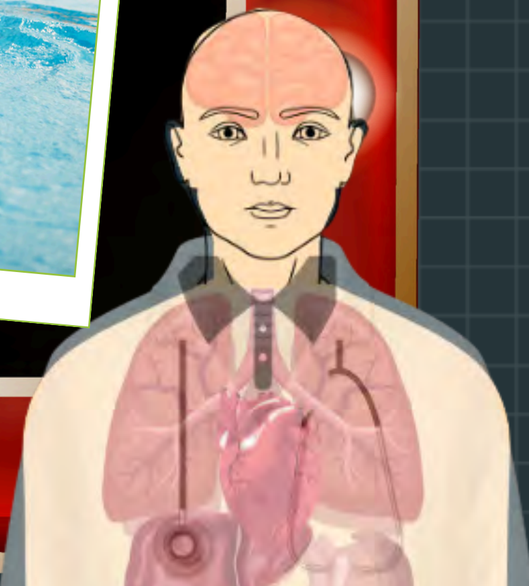
Butterflies breathe through tiny holes along the sides of their bodies called SPIRACLES.

Oxygen flows directly into the trachea then to the rest of the body.

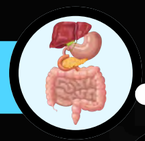
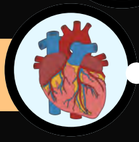
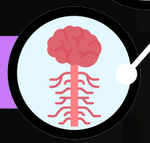


QUESTION # 5

Which systems work together to help us swim? We need energy for the heart, lungs, and muscles!



BIOLOGICAL SYSTEMS

1. Digestive system 
2. Musculoskeletal System 
3. Circulatory System 
4. Respiratory System 
5. Nervous System 

BIOLOGICAL PROCESSES


1. Movement

2. Nutrition

3. Respiration

4. Growth

5. Reproduction

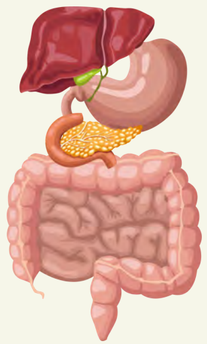
STATION OVERVIEW

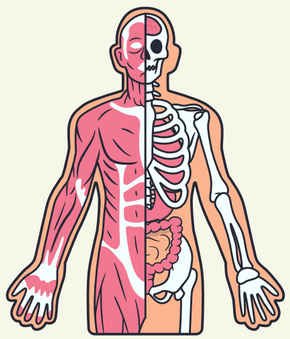
4 Stations

20 minute rotations

STATION # 1

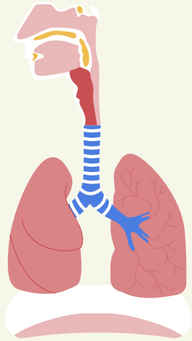
Guts, Muscles & Bones - Oh My!

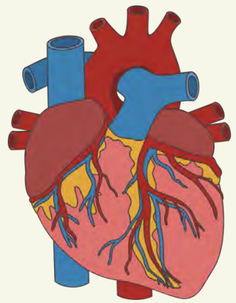




STATION # 2

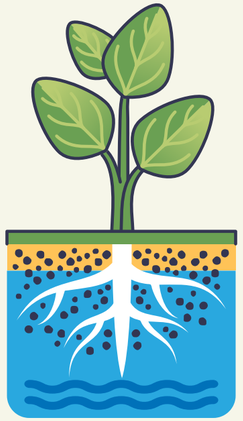
Pump it Up!





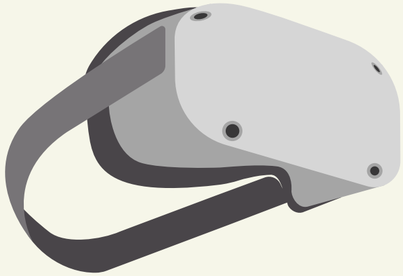
STATION # 3

Transport Systems in Plants



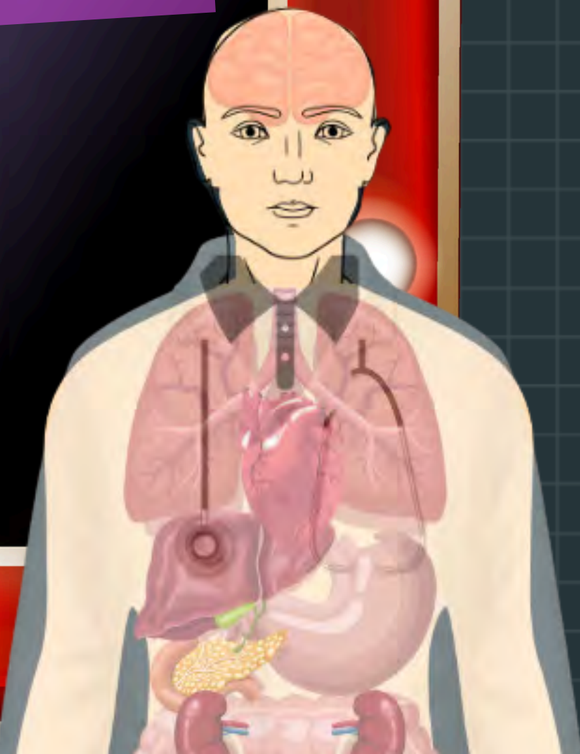
STATION # 4

VR Station: Human Body Systems



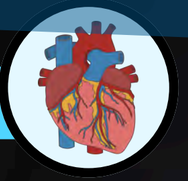
ANATOMY ADVENTURES

LIGHTNING ROUND

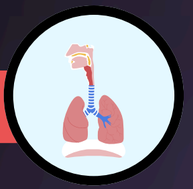


LIGHTNING ROUND

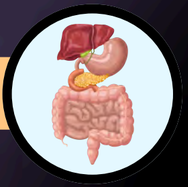
1. What is the function of the heart?



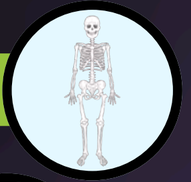
2. What is the funtion of the lungs?



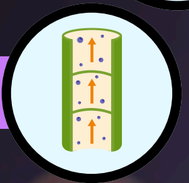
3. What is the function of the intestines?



4. What is the function of our skeleton?

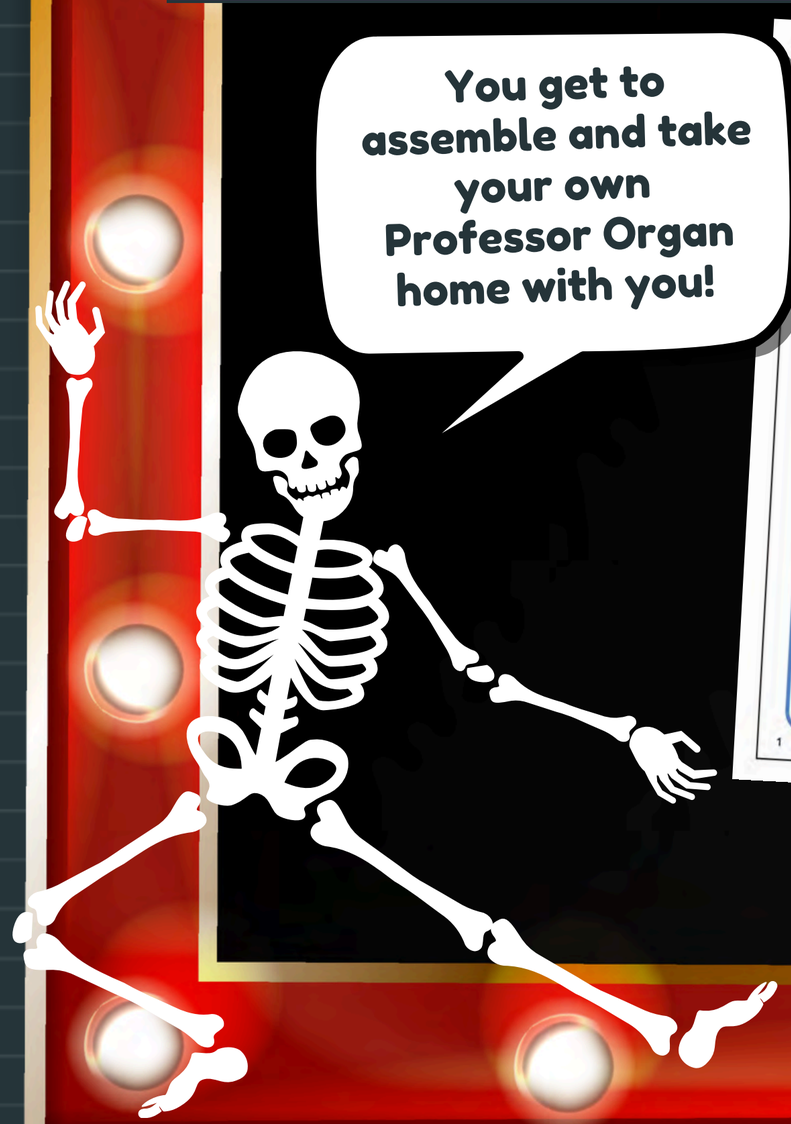


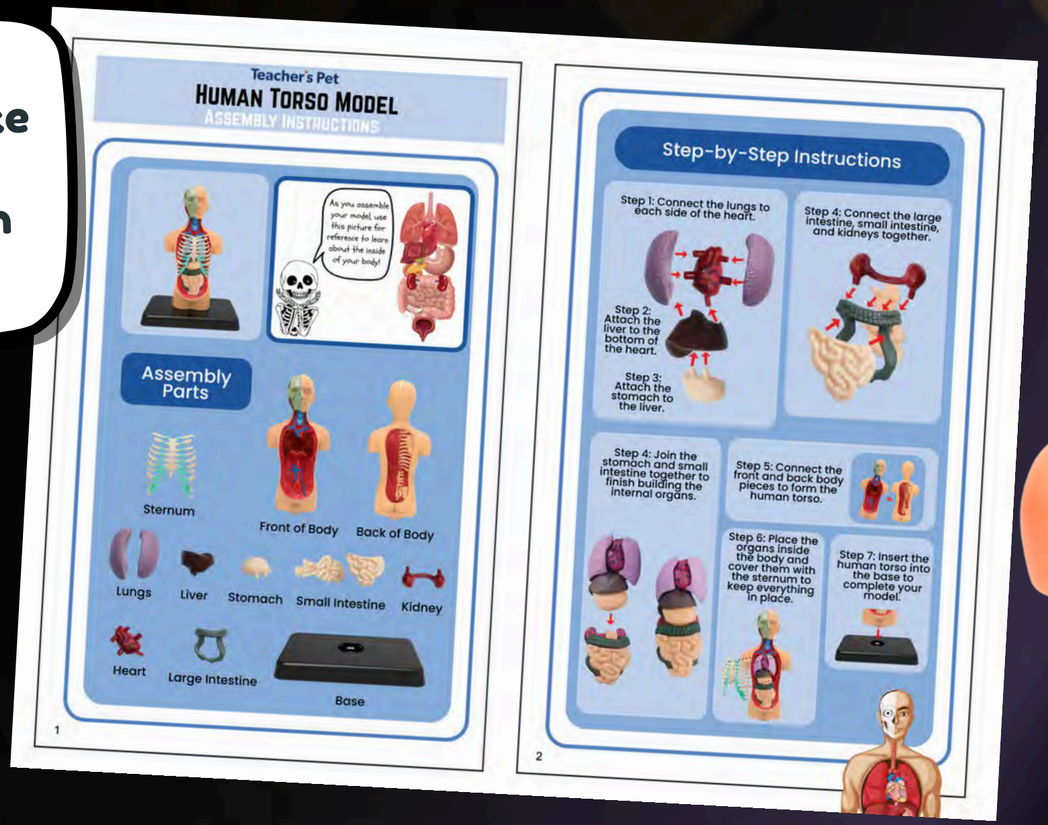
5. What is the function of plant xylem?



PRIZE TAKEAWAY

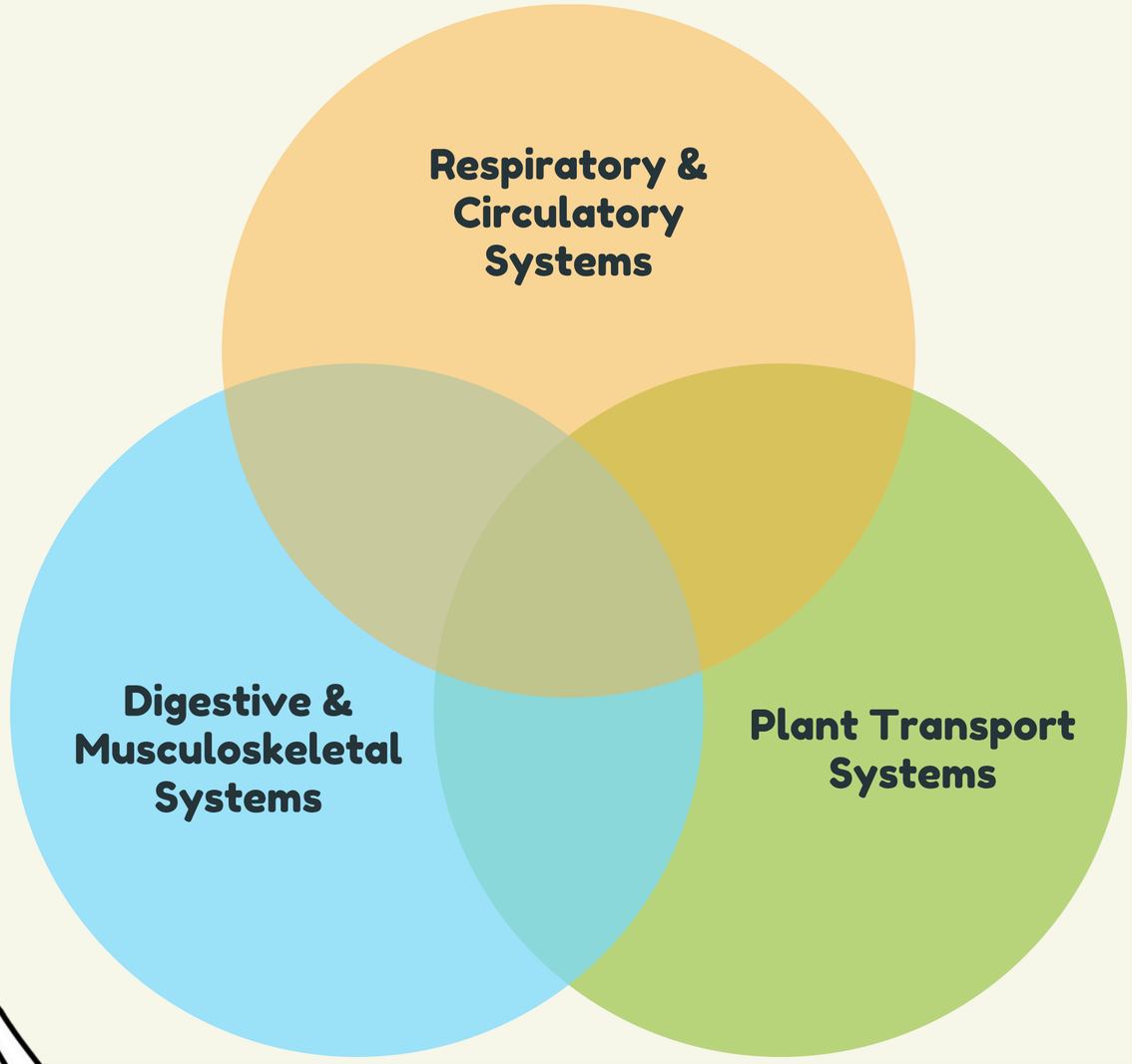
OVERVIEW OF HOW TO ASSEMBLE TAKE AWAY

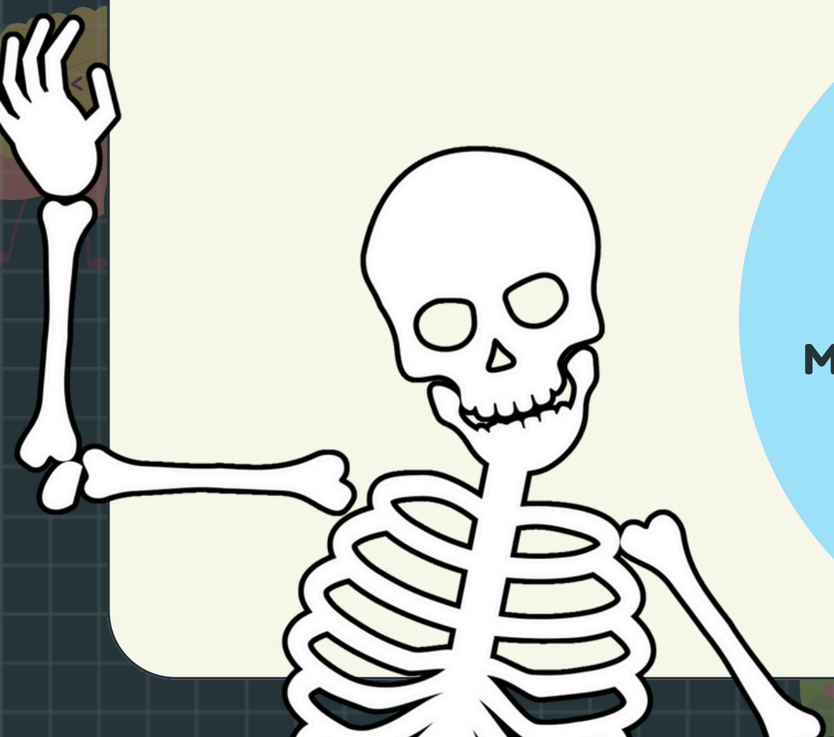


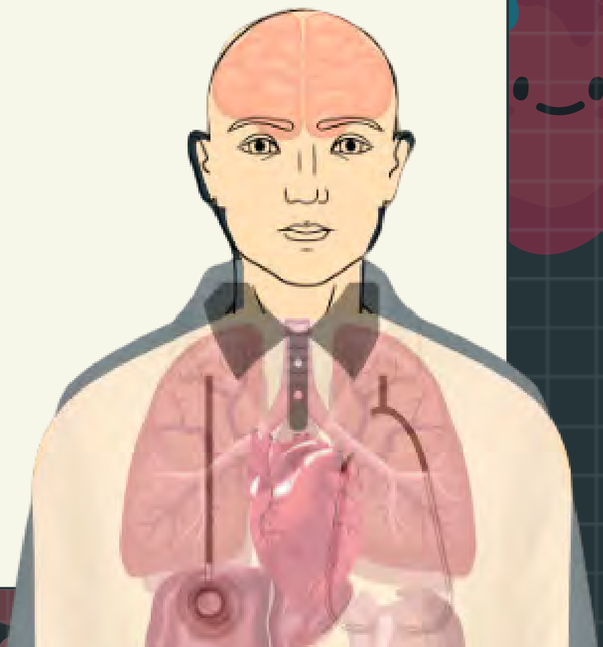


Note: This instruction sheet can be found in the Teacher's Package.

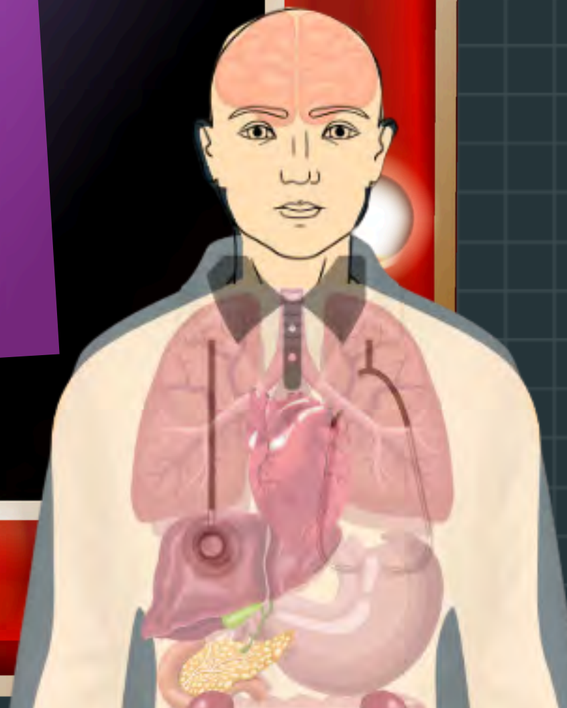
CONCLUSION: HOW ARE ORGANISMS SUPPORTED BY VITAL BIOLOGICAL PROCESSES & SYSTEMS?







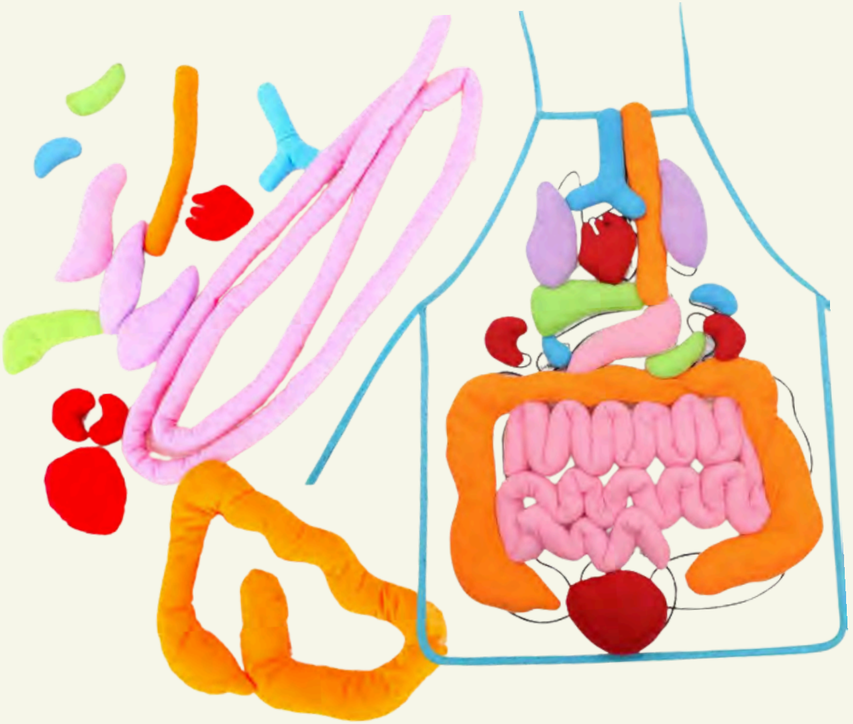
THANK YOU !

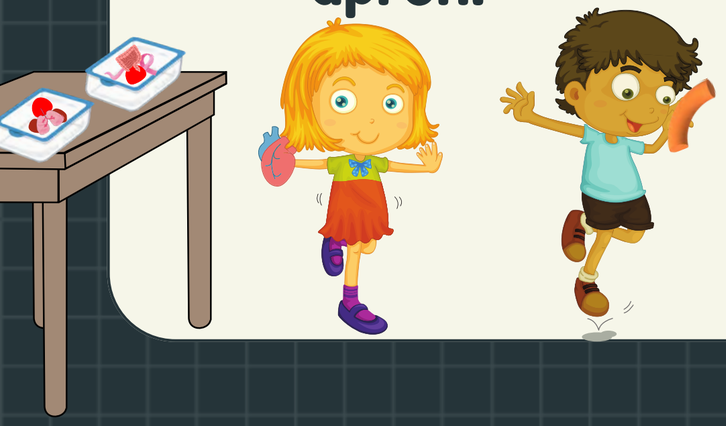


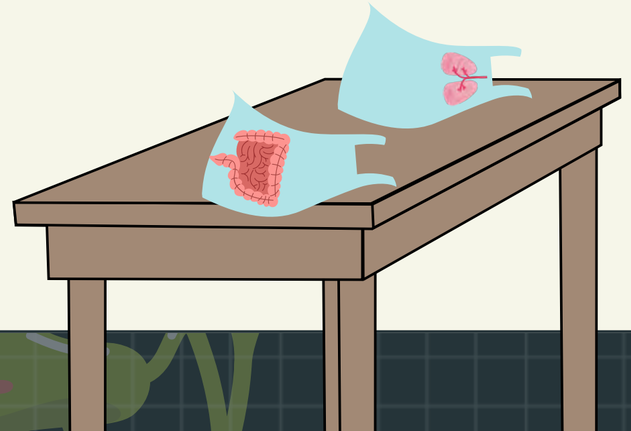
STATION # 1: GUTS, BONES, & MUSCLES - OH MY!

PROFESSOR ORGAN'S RELAY RACE

1. Split into 2 teams (2 lines).
2. Place blank aprons on the table and organ containers next to them.
3. Grab an organ from the container and put it on the apron.
4. High-five the next teammate and go to the back of the line.
5. Be the first team to hold up a completed apron!

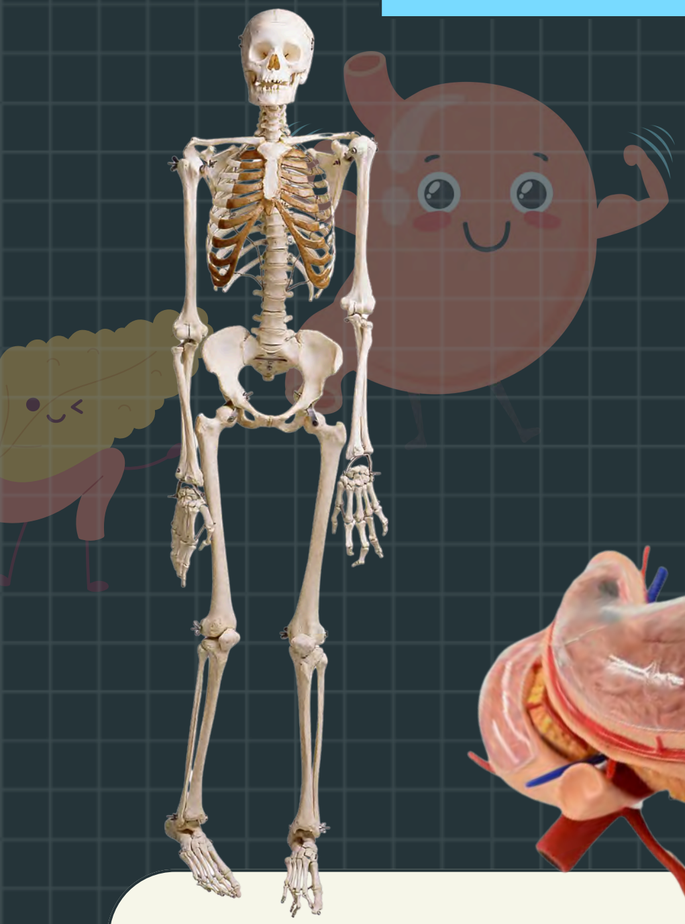




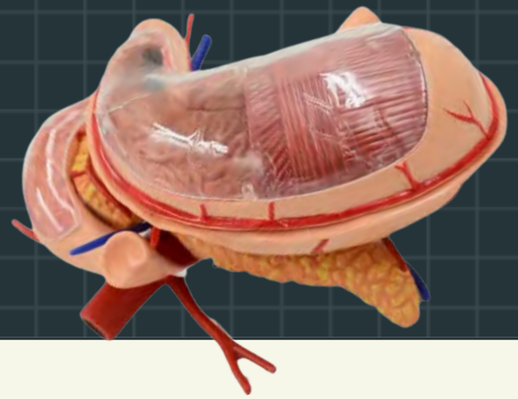


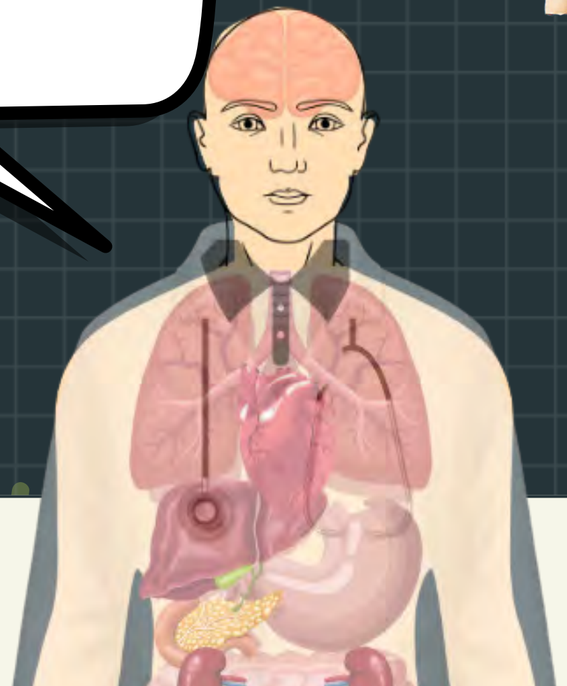
STATION # 1: GUTS, MUSCLES & BONES - OH MY!

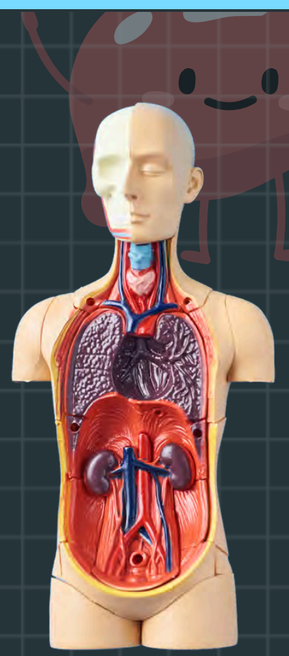
DIGESTIVE AND MUSCULOSKELETAL SYSTEMS

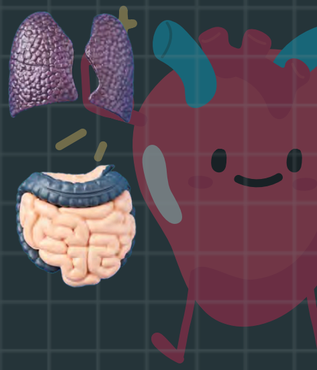


Please be respectful when exploring the models and posters.





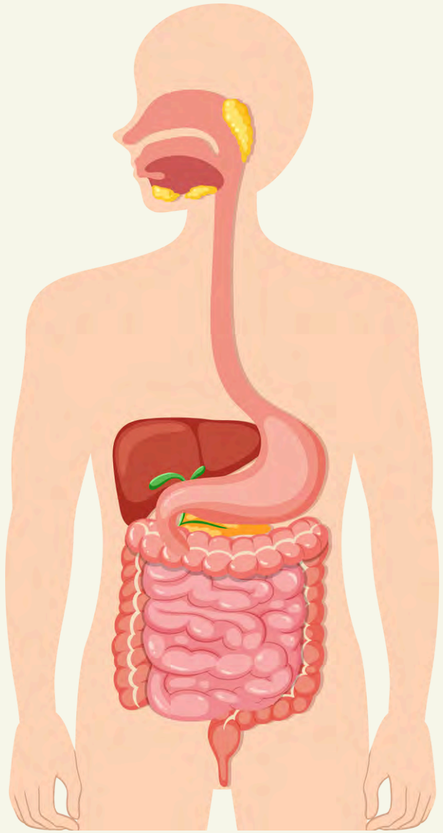




STATION # 1: GUTS, MUSCLES & BONES - OH MY!

Label the diagrams & match the organ functions in your worksheet.

DIGESTIVE SYSTEM



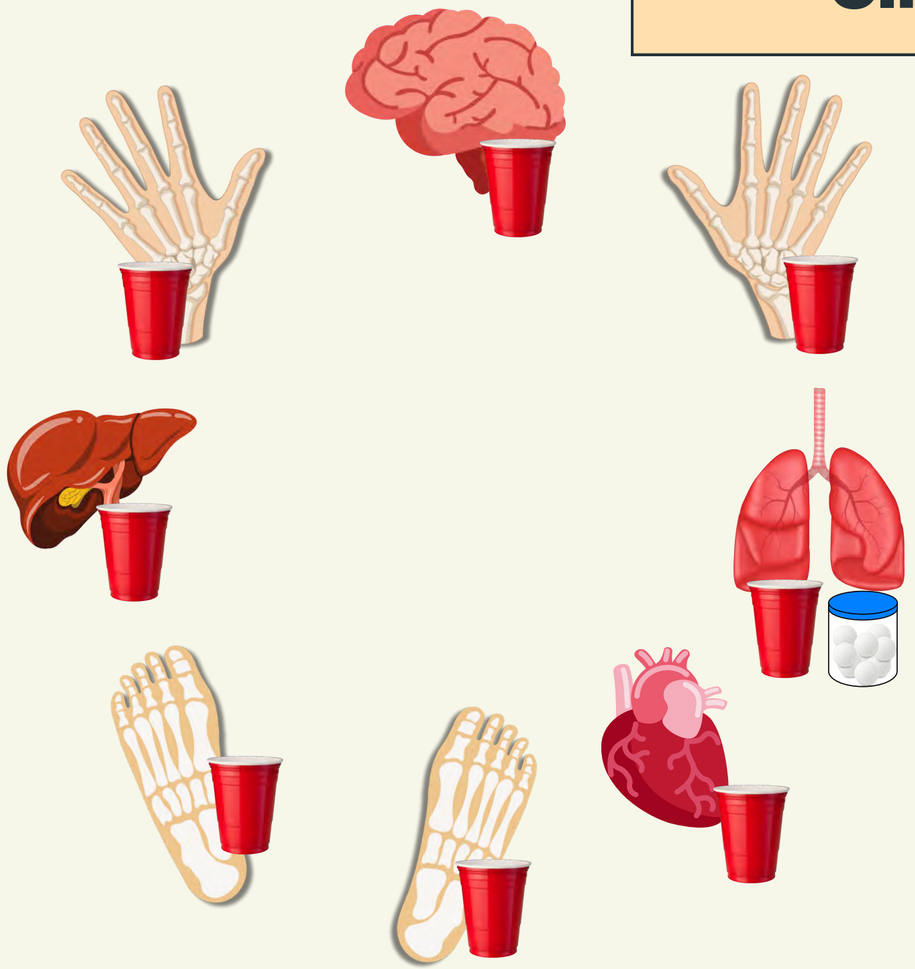
MUSCULOSKELETAL SYSTEMS

= OXYGEN

STATION # 2: PUMP IT UP!

CIRCULATION RACE

The cups represent the blood vessels that carry oxygen to our body parts!

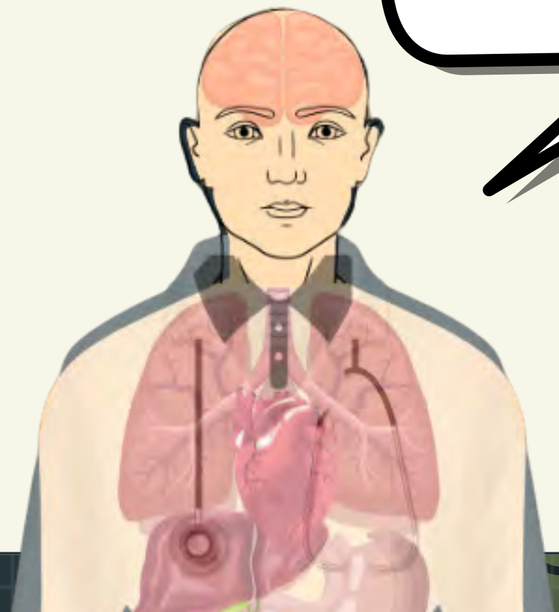


1. Stand up around the desks/table.
2. Everyone holds an empty cup and a card.
3. Student at the lungs starts as the “Blood Hopper” (BH).
4. BH hops to the lungs to collect a ball in the cup and gives the student with the heart a high-five.
5. Hop around the table to a body part.
6. Person at the body part switches spots with BH (pass card off and turn it over).
7. The new BH student hops to the lungs to collect a ball, gives the heart a high-five and hops to a different body part.
8. Repeat until each team member has a ball (oxygen).
9. Record time to complete the race.

STATION # 2: PUMP IT UP!

LUNG & HEART FUNCTION MODELS

Pull out the diaphragm and watch the lungs fill with air.

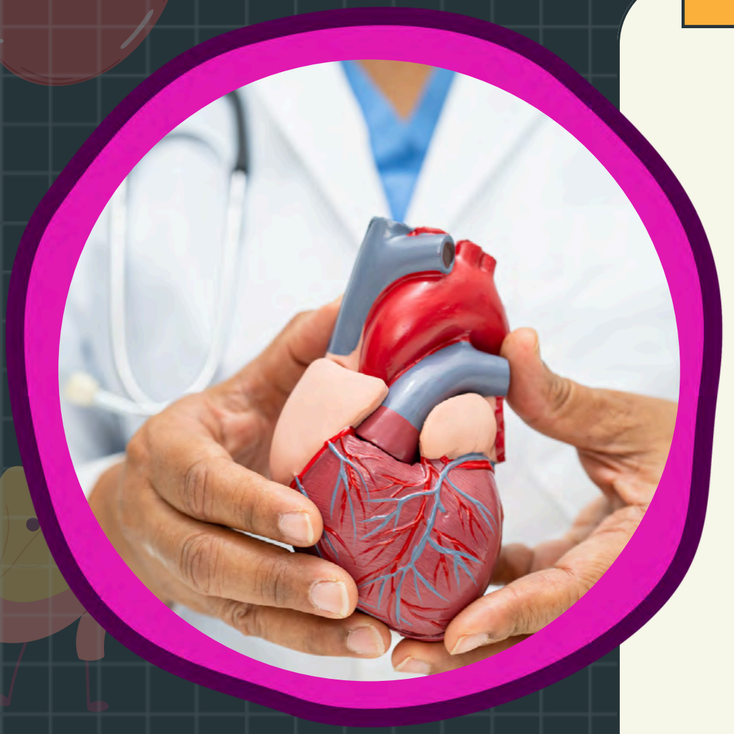


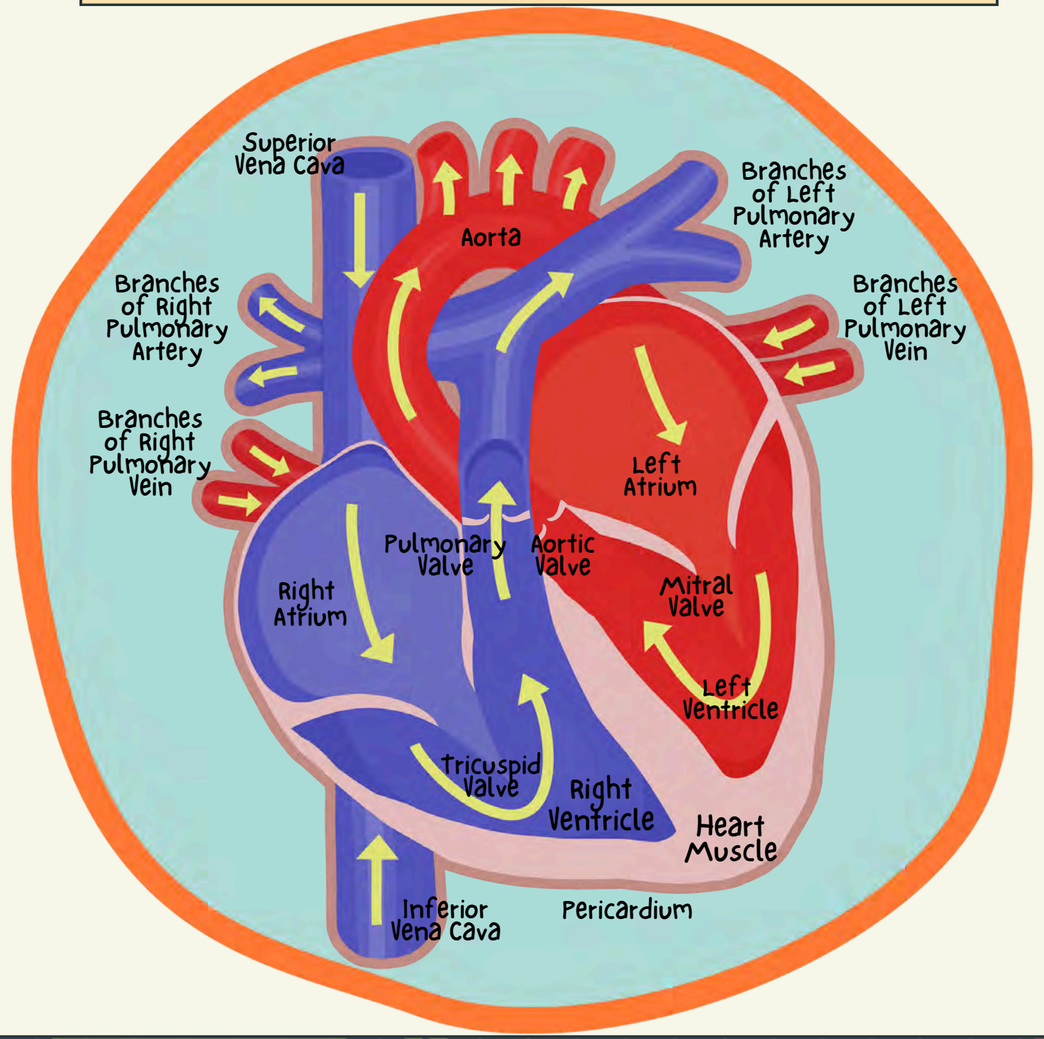
STATION # 2: PUMP IT UP!

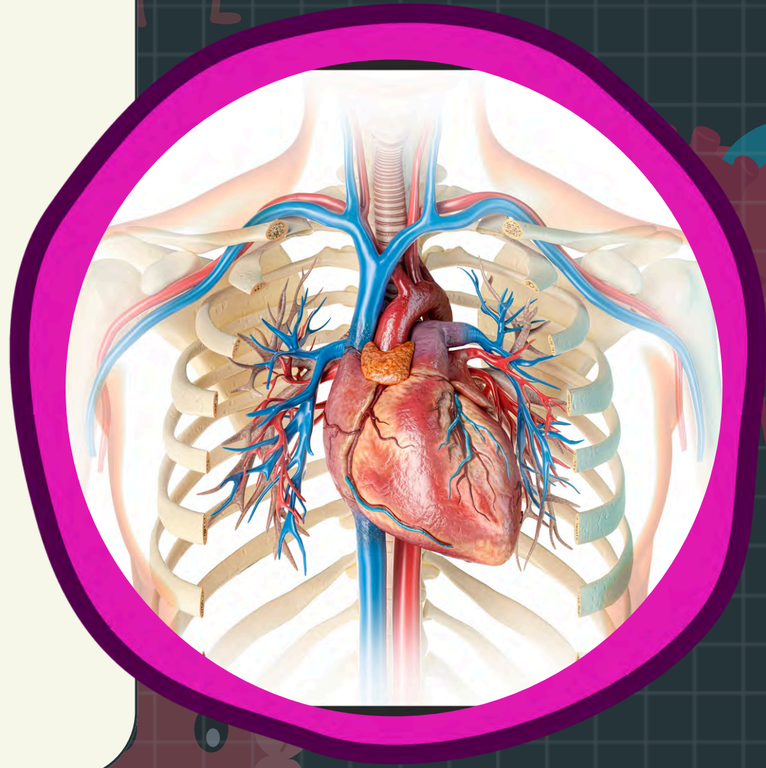
LUNG & HEART FUNCTION MODELS

STATION # 2: PUMP IT UP!

HUMAN HEART ANATOMY





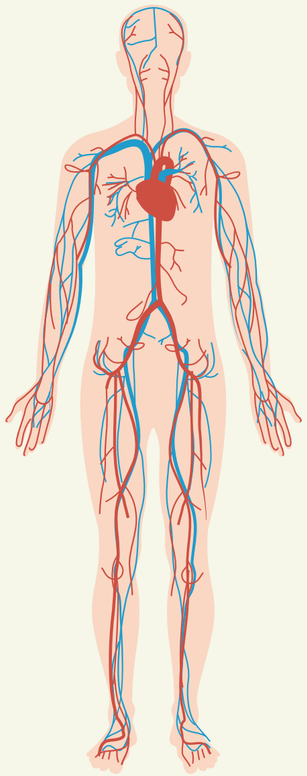


STATION # 2: PUMP IT UP!

Label the diagrams & match the organ functions in your worksheet.

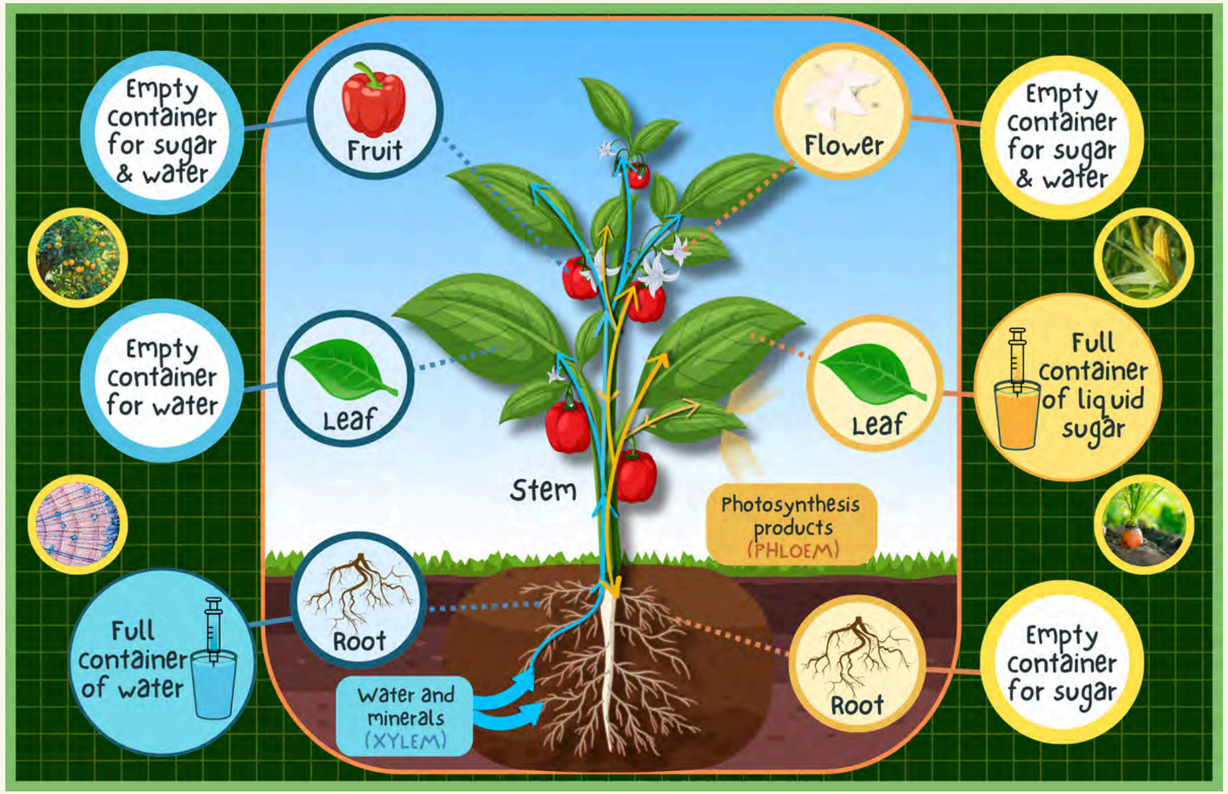
RESPIRATORY SYSTEM

CIRCULATORY SYSTEM

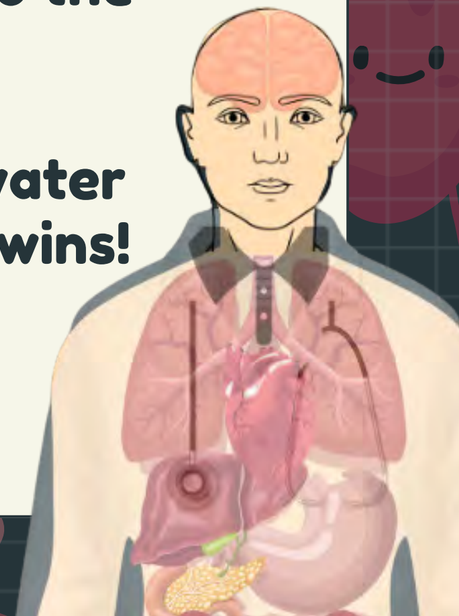


STATION # 3: SUCK IT UP!

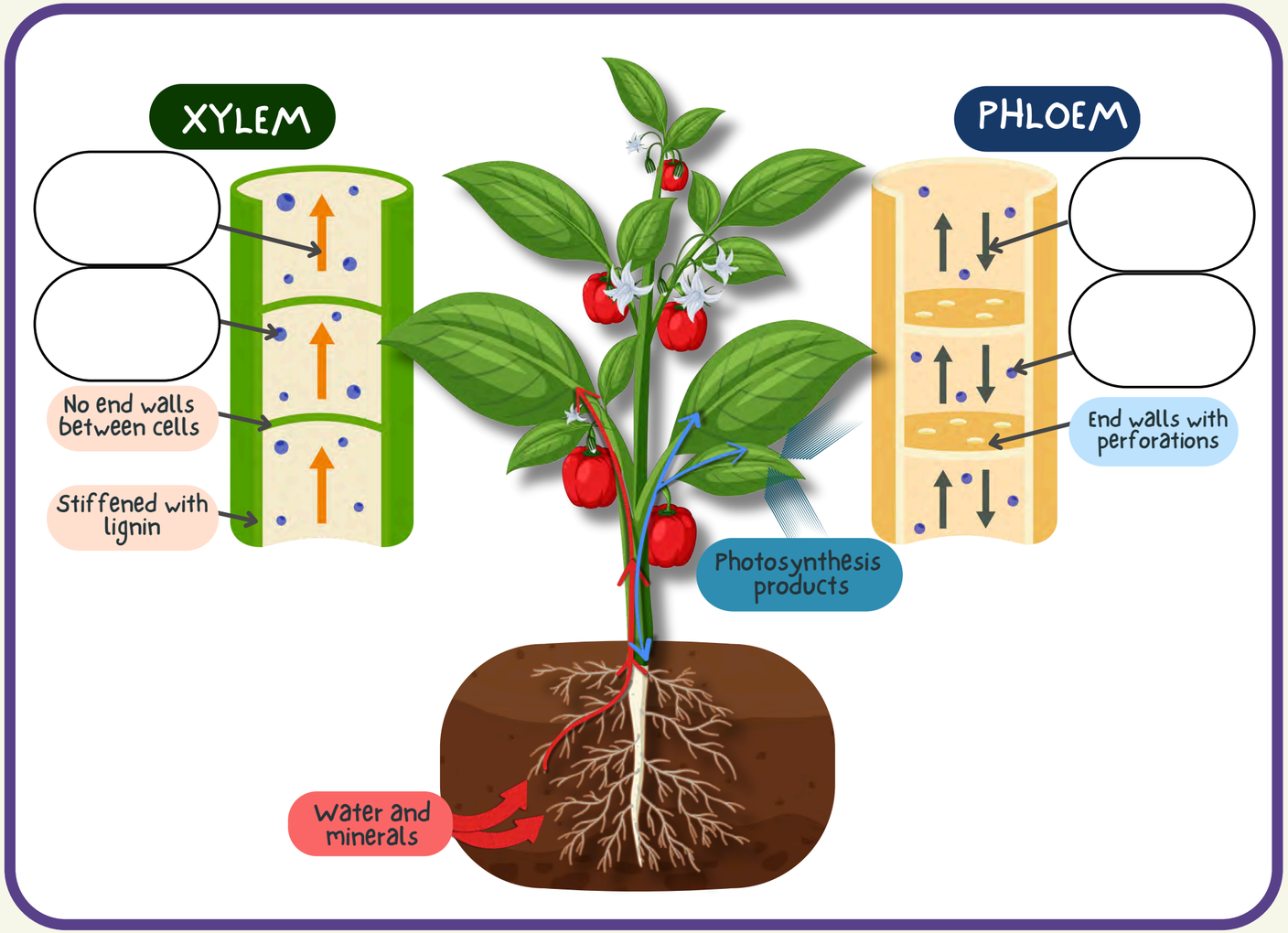
SUCK IT UP RELAY RACE



1. Split into 2 teams (2 lines).
2. Pull water from your cup (blue or yellow) with the syringe.
3. Deposit the water into one of the bottles.
4. Pass the syringe to the next student and go to the back of the line.
5. Repeat for 1 minute.
6. Team with the most water moved to the bottles wins!



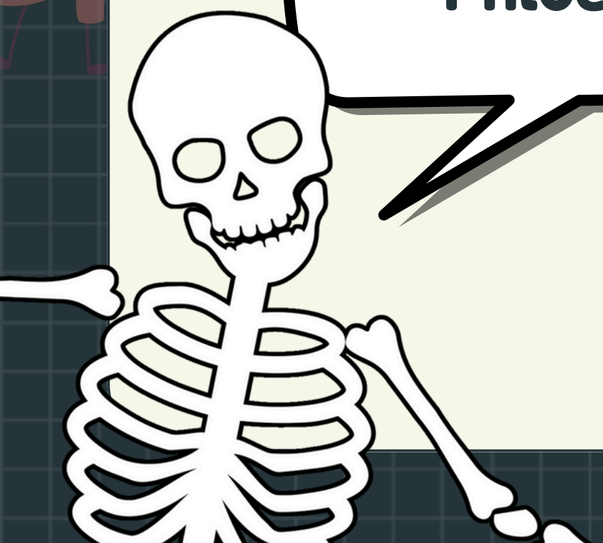
STATION # 3: TRANSPORT SYSTEMS IN PLANTS



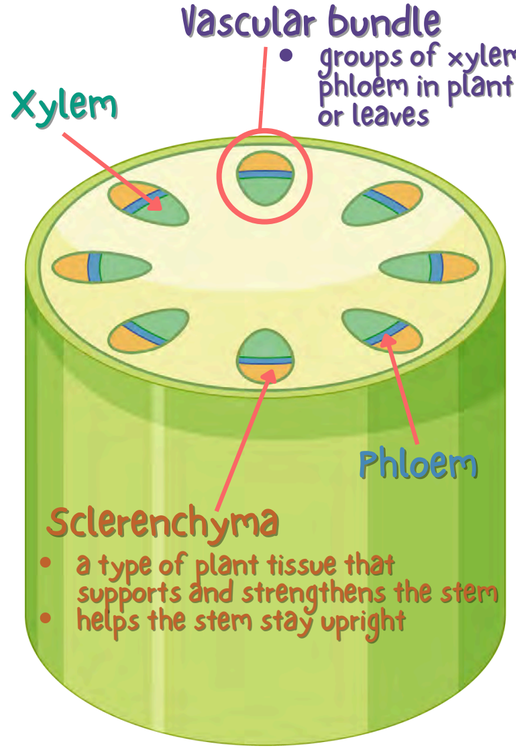
Label the diagram in your worksheet.

STATION # 3: TRANSPORT SYSTEMS IN PLANTS

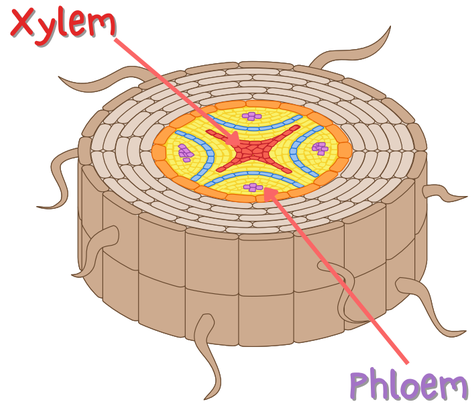
Plant visual of the Xylem and Phloem



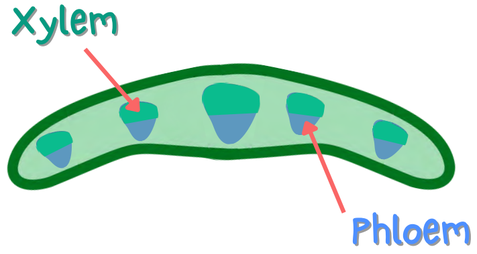
PLANT STEM CROSS SECTION



PLANT ROOT CROSS SECTION



PLANT LEAF CROSS SECTION



STATION # 4:
VIRTUAL REALITY - HUMAN BODY SYSTEMS