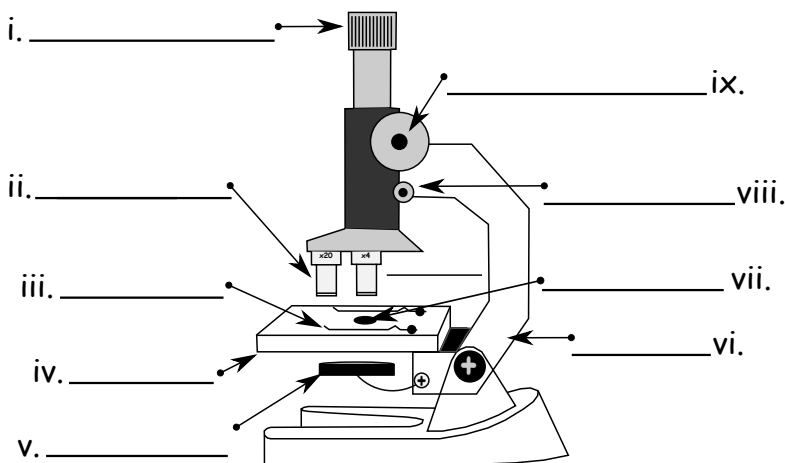


Student Answer Sheet: Light Microscope

1. Using the book, complete the gap filling exercise on The Light Microscope below.

2. Using the words from the book, label the microscope below.



3. Use the instructions from the book to calculate the magnifications below.

A. Image size: 0.5 mm, object's real size: 0.1 mm. Magnification: _____

B. Image size: 0.5 mm, object's real size: 0.05 mm. Magnification: _____

C. Image size: 0.08 mm, object's real size: 0.008 mm. Magnification: _____

D. Image size: 100 mm, object's real size: 10 mm. Magnification: _____

E. Image size: 0.4 mm, object's real size: 0.04 mm. Magnification: _____

4. Transfer the numbers from the book and calculate the missing information.

Image size (mm)	Object size (mm)	Magnification

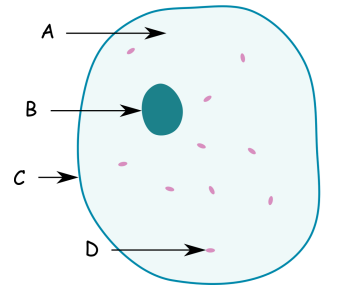
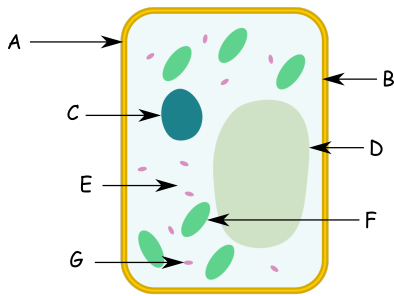
5. Use the book to write your answers below.

- Used to roughly focus the image _____
- Holds the slide in place _____
- Provides different magnifications of the specimen _____
- Allows light to pass through the stage and onto the specimen _____
- Provides small adjustment in focus for the clearest image _____
- The lens that is used to view the image _____
- Where specimens are placed for viewing _____
- Used to reflect light on the specimen _____

Student Answer Sheet: Cells

1. Using the book, complete the gap filling exercise on Cells below.

2. i. Use the words from the book to label the plant and animal cells below.



ii. Write your list to answer the question from the book below.

3. Write the name of the organelle next to its job. Use the words in bold from the book.

Organelle

Job of Organelle

- _____
- _____
- _____
- _____
- _____
- _____
- _____

- a. contains the DNA (instructions for making new cells)
- b. provides support for the cell
- c. contain chlorophyll for photosynthesis
- d. where the chemical reactions take place
- e. contains cell sap
- f. where energy is released by respiration
- g. controls what goes into and out of the cell

4. Choose the correct beginning of the sentence from the book and write it next to the correct letter.

- _____
- _____
- _____
- _____

- a. means they can flow through blood vessels more easily.
- b. them to swim to a woman's egg to fertilize it.
- c. contract creating movement through forces.
- d. providing a large surface area for absorbing water and nutrients.

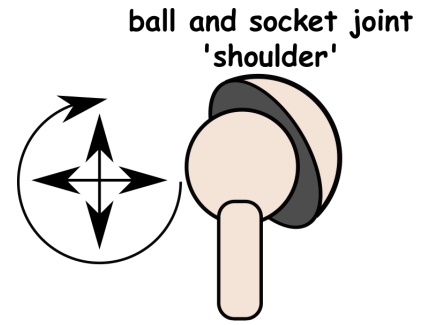
5. Levels of organisation. Use the descriptions from the book to write your answer in the space below.



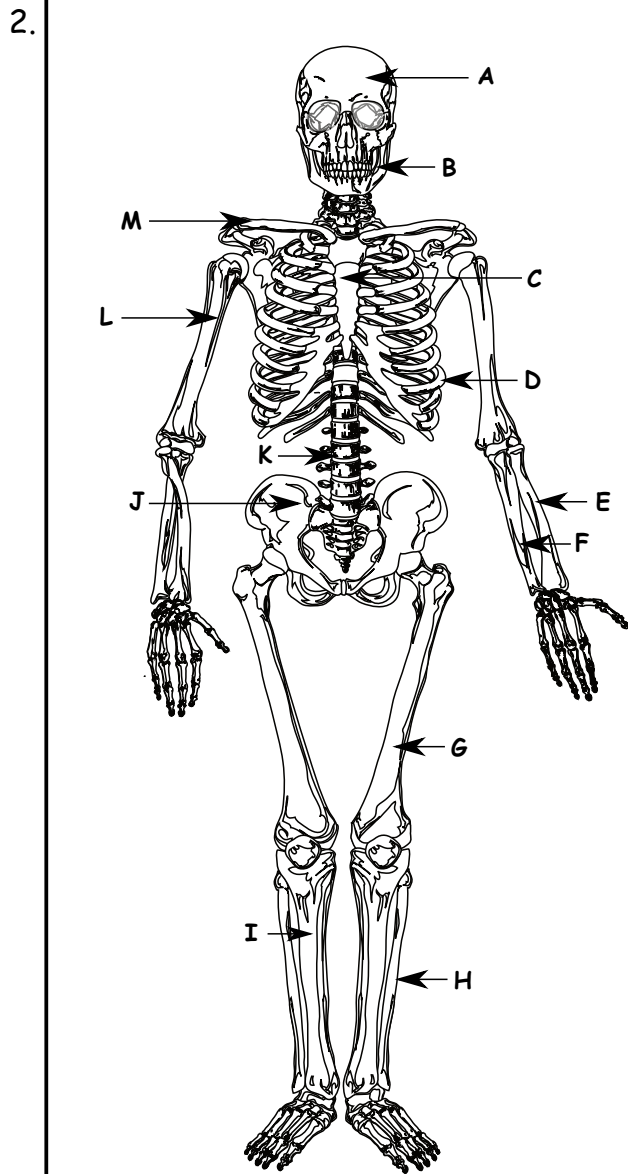
ii. Names of other organ systems.

Student Answer Sheet: The Human Skeleton and Bones

1. Using the book, complete the gap filling exercise on The Human Skeleton and Bones below.



Write your description below.

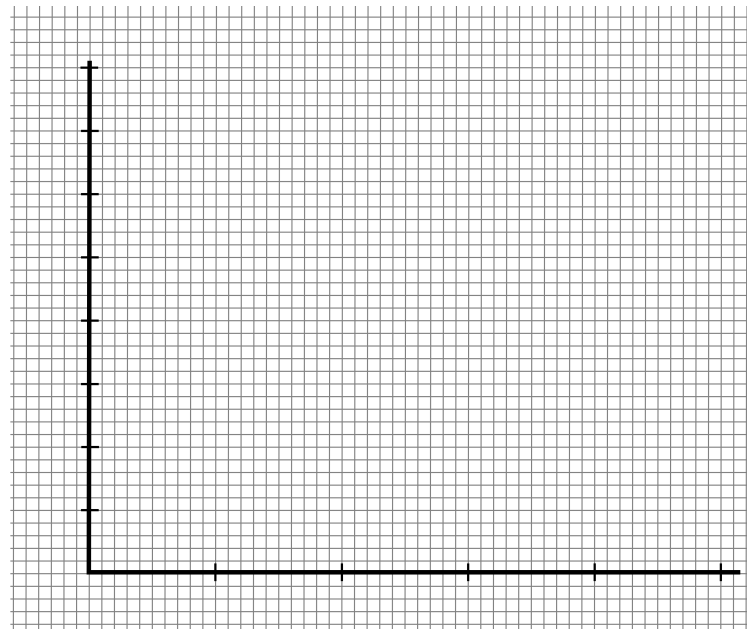


3. Write the words in bold from the book into the correct column.

Exoskeleton	Endoskeleton

5. ii. Explanation.

5. i.

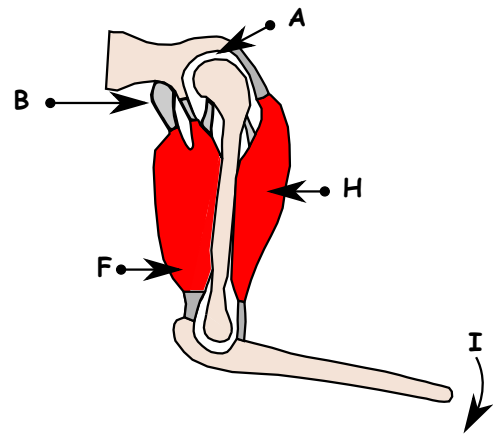
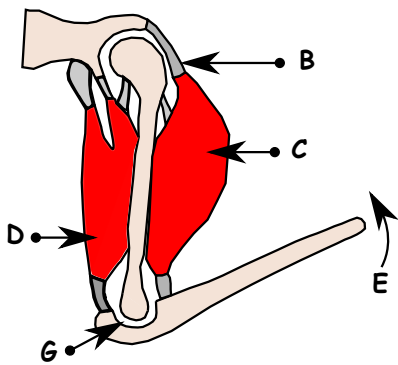


Student Answer Sheet: Muscles and Forces

1. Using the book, complete the gap filling exercise on Muscles and Forces below.



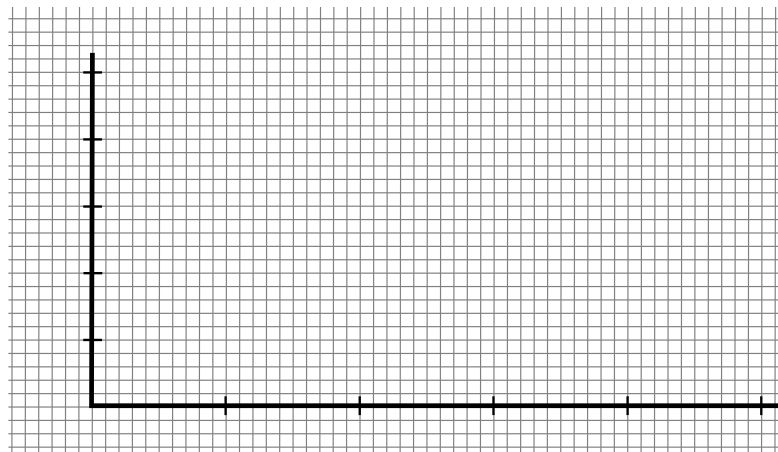
2. Label the diagrams below using the words in bold from the book.



3. Using the book, write your answers in the space below.

- | | |
|------|-------|
| i. | vi. |
| ii. | vii. |
| iii. | viii. |
| iv. | |
| v. | ix. |

4. Plot your histogram opposite using the data from the book.



Student Answer Sheet: The Respiratory System, Breathing

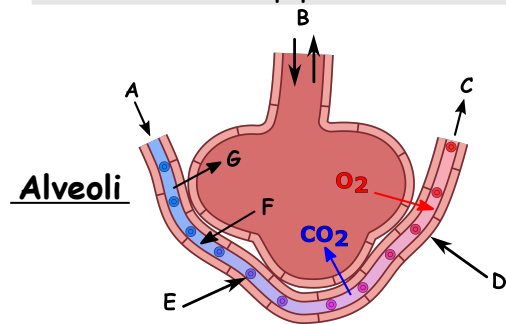
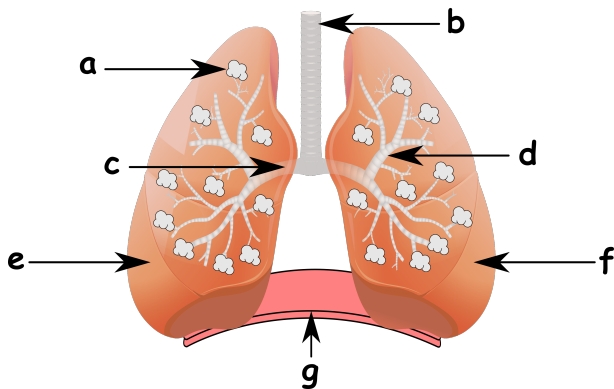
1. Using the book, complete the gap filling exercise on The Respiratory System, Breathing below.

2. Match the numbers to the letters to make eight correct sentences.

1. As the diaphragm moves down
2. Air enters our lungs through
3. As the diaphragm moves up
4. The wind pipe branches into two
5. O_2 is
6. Alveoli are
7. Gas exchange happens due to
8. CO_2 is

- a. expelled through the lungs.
- b. the lungs contract.
- c. absorbed through the lungs.
- d. tiny air sacs.
- e. diffusion.
- f. the lungs expand.
- g. bronchi.
- h. the wind pipe.

Lung Diagram



4 a. Using the book, write your answers below.

3. Using the words from the book, label the diagram of the lungs above.

iv.

v.

vi.

b. Label the diagram of the alveoli using the descriptions from the book.

5. Write statements a. to h. from the book in the correct order to describe breathing in and out.

1st.

2nd.

3rd.

4th.

5th.

6th.

7th.

8th.



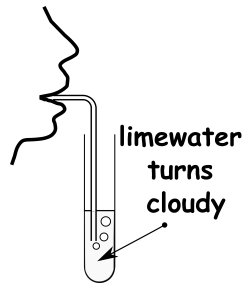
Student Answer Sheet: Respiration

1. Using the book, complete the gap filling exercise on Respiration below.

2. i. water condenses on the mirror



Answer

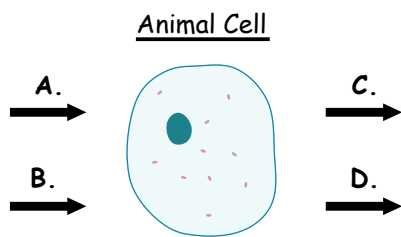


Answer

3. Use the labels from the book to complete the equations below.



4. Label the arrows using the chemical formulae from the book.



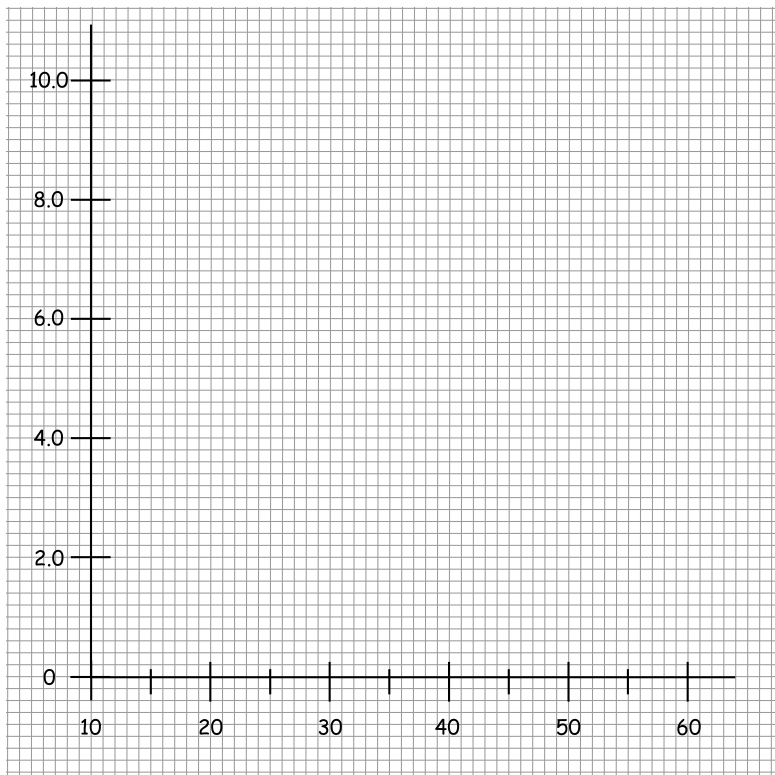
6 ii.

iii.

5. Answers

i.

ii.



Student Answer Sheet: Diffusion

1. Using the book, complete the gap filling exercise on Diffusion below.

2. Complete your 'part way' through diffusion diagram on the beaker shown opposite.



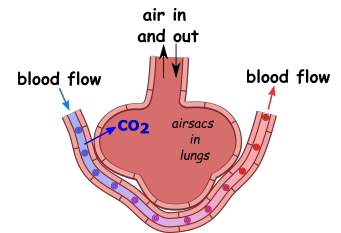
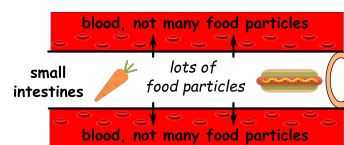
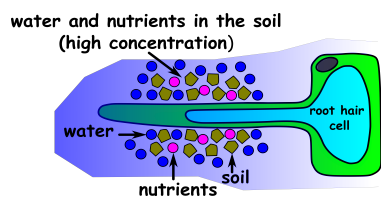
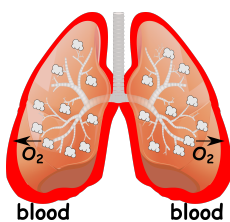
● ← squash particles

● ← water particles

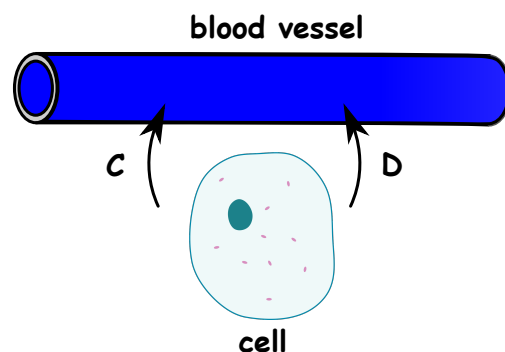
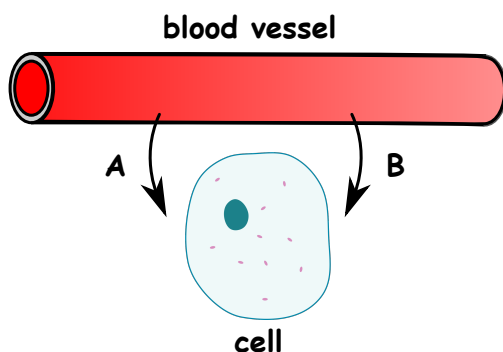
3. Use the book to write the statements about dye diffusing under the correct temperature.

Water at 90°C
Water at 10°C
Water at 40°C

4. Write the descriptions in italics from the book in the correct box.



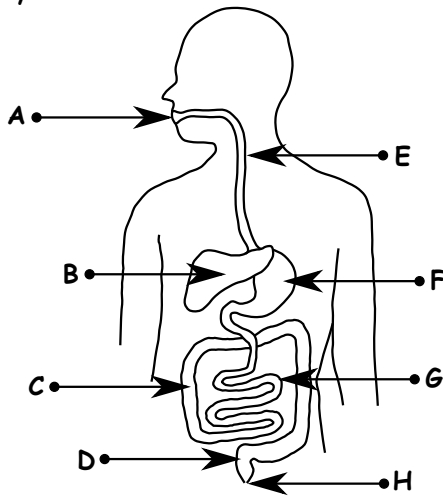
5. Label A. to D. below using the words from the book.



Student Answer Sheet: The Human Digestive System

1. Using the book, complete the gap filling exercise on The Human Digestive System below.

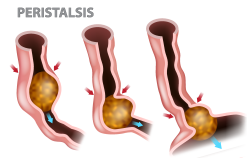
2. Use the words from the book to label the human digestive system.



3. Answers

i.

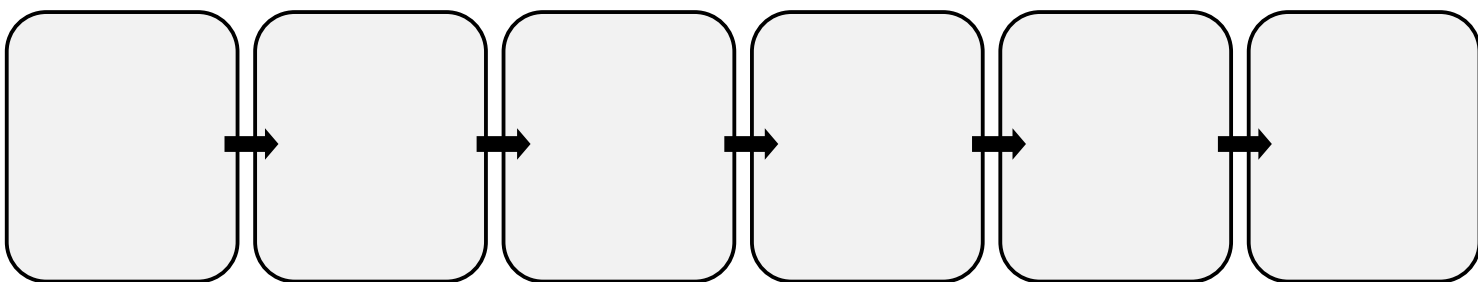
ii. unscrambled peristalsis examples.



4. Write your answer to the matching exercise in the space below.

- a. Absorbs water from the waste food
- b. Tube connecting the mouth to the stomach
- c. Breaks up and grinds food
- d. Food is churned here, acid and enzymes are added
- e. Waste faeces are stored here
- f. Produces bile to help break down fats
- g. This is where the broken down food is absorbed into the blood
- h. Waste faeces are excreted here

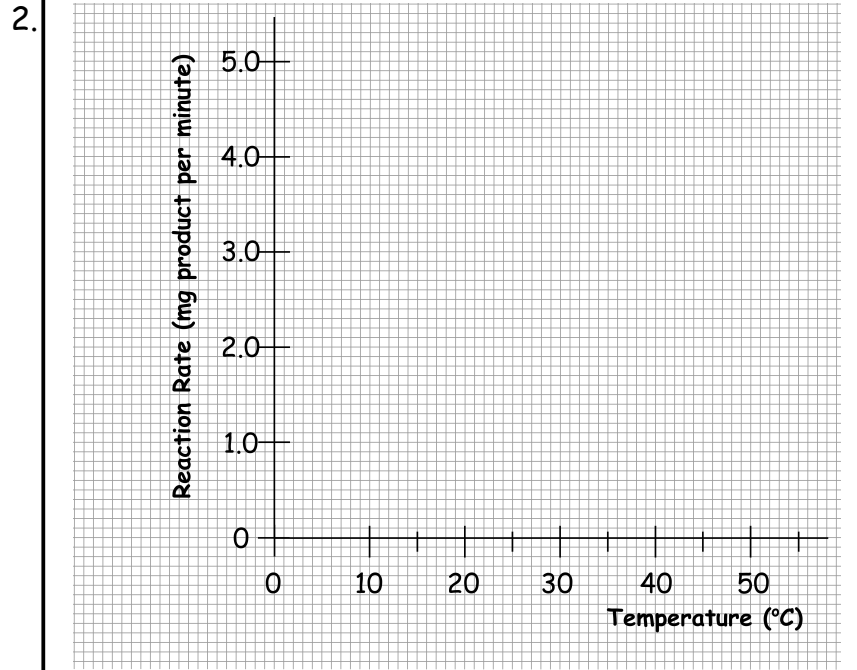
5. Digestion flowchart.



- 6.
- _____ a. Bloating, diarrhea, constipation and stomach cramps.
- _____ b. Loose, watery bowel movements.
- _____ c. Difficulty in going to the toilet. Passing firm stools.
- _____ d. Heart 'burn', feeling sick or bloated.
- _____ e. Fever, fatigue, diarrhea and cramping. Named after Dr Burill Crohn.

Student Answer Sheet: Enzymes

1. Using the book, complete the gap filling exercise on Enzymes below.



Answer
2 iii.

3. Write the words from the book next to the correct description.

- _____ a. enzymes that break down sugar
- _____ b. substances that speed up chemical reactions without being used up
- _____ c. enzymes that break down proteins
- _____ d. a biological catalyst
- _____ e. enzymes that break down carbohydrates
- _____ f. enzymes that break down fats

4.

A breaks down number _____

B breaks down number _____

C breaks down number _____

5. Write your answers about enzymes in the space below.

i. _____ iv. _____

ii. _____ v. _____

iii. _____



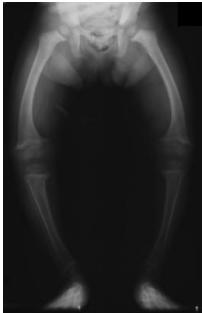
Student Answer Sheet: A Healthy Human Diet

1. Using the book, complete the gap filling exercise on A Healthy Human Diet below.

2. Use the book to write the correct food group next to the description below.

- | | |
|-------|----------------------------------------------------------------------------|
| _____ | a. for growth and repair of tissue |
| _____ | b. needed by the body in small amounts to stay healthy, e.g. A, B, C, D, E |
| _____ | c. undigestible food essential for a healthy gut |
| _____ | d. provide energy |
| _____ | e. for energy stores and insulation |
| _____ | f. needed by our cells to work properly and aids digestion |
| _____ | g. contain elements needed by the body, e.g. iron, calcium, magnesium |

3.

Most			Rickets
	Lethargy	Scurvy	

Group of foods	Angle (°)	Percentage
Bread, rice, potatoes, pasta	119°	
Dairy	50°	
Fruit and vegetables	130°	
Meat, fish, eggs, beans	36°	
Fatty and sugar foods	25°	

Least

4. Using the book, write your answers in the space below.

- | | |
|------|-------|
| i. | vi. |
| ii. | vii. |
| iii. | viii. |
| iv. | ix. |
| v. | x. |

5.

<u>Saturday</u>	<u>Sunday</u>
-----------------	---------------

Student Answer Sheet: Drugs and their Impact

1. Using the book, complete the gap filling exercise on Drugs and their Impact below.



2. Use the book to write the correct drug type next to the correct description.

- | | |
|-------|--------------------------------------------------------|
| _____ | a. drugs taken for pleasure |
| _____ | b. slows down nerve activity can make you feel relaxed |
| _____ | c. drugs that help us get better from illness |
| _____ | d. speed up nerve activity can make you feel energised |
| _____ | e. drugs that cause loss of sensation (pain relief) |
| _____ | f. drugs that treat bacterial infections |

3. Use the words in italics from the book, write out **your** correct order.

- | | | |
|----|----|----|
| 1. | 2. | 3. |
| 4. | 5. | |
| 6. | 7. | |



4. i. and ii. Use the book to complete the table below.

Negative effect	Drug Name	Stimulant/Depressant?
a. Drinking too much can damage the liver. Slows nerve activity.		
b. Snorting causes damage to the nose. Speeds nerve activity.		
c. Smoking too much can cause paranoia. Slows nerve activity.		
d. Often injected, highly addictive and many negative side effects e.g. easy to overdose and die. Slows nerve activity.		
e. Long term use can lead to anxiety or depression (opposite to the drugs name). Speeds nerve activity.		
f. The drug in cigarettes that makes them addictive. Cigarettes cause cancer. Speeds nerve activity.		
g. Too many energy drinks can cause heart rythm problems. Speeds nerve activity.		

5. Using the words in bold from the book, write the correct drug name under the correct image.

A.	B.	C.	D.	E.	F.	G.	H.
							

6. List of medicines.

Student Answer Sheet: Exercise, Asthma and Smoking

1. Using the book, complete the gap filling exercise on Exercise, Asthma and Smoking below.

Blank area for gap filling exercise.

2. Using the book, write the statements in bold in the correct column.

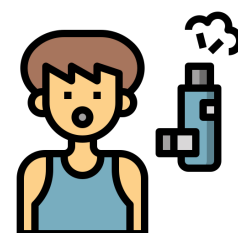
Effect happens immediately/ when exercising	Effect happens in the longer term

3. Use the book to write the correct description next to the words in bold.

_____	a. the addictive drug from smoking
_____	b. an activity that require physical effort
_____	c. a sticky brown substance from smoking
_____	d. a disease of the airways causing breathlessness and wheezing
_____	e. a toxic gas from smoking that reduces the ability of the blood to carry oxygen

4. Use the book to write the statements in the correct order for an asthma attack.

1st	4th
2nd	5th
3rd	



5. **Answers**

i.
ii.
iii.

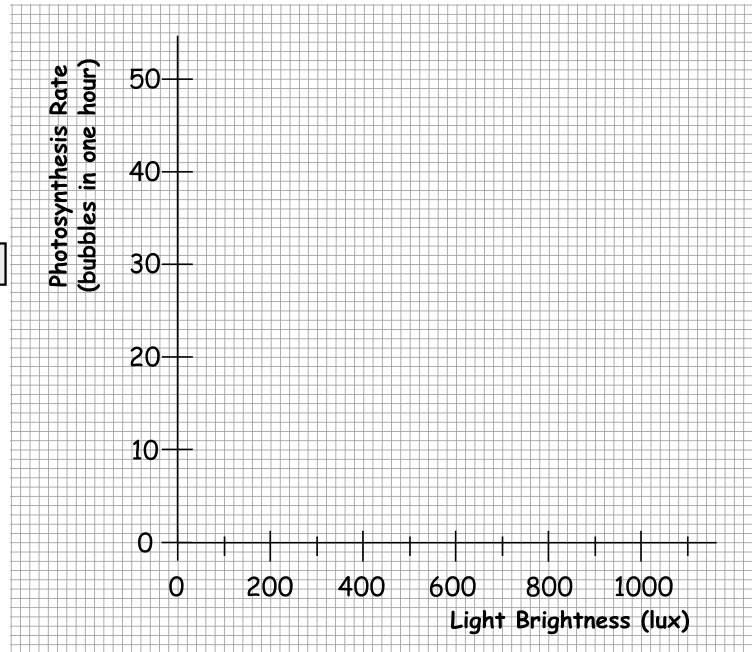
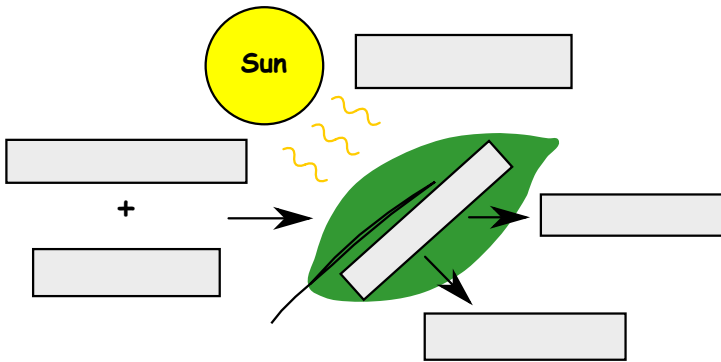
6. **Answers**

a.
b.
c.
d.
e.

Student Answer Sheet: Photosynthesis

1. Using the book, complete the gap filling exercise on Photosynthesis below.

2. Unscramble the words from the book to label the diagram below. 3. i. Plot your graph on the grid below

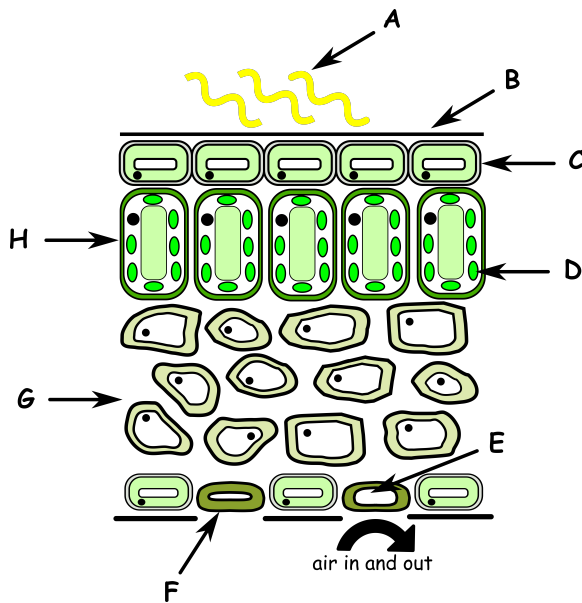


3 ii. Use the words from the book to correctly describe how the rate changes below.

4. Match the words from the book to their correct meaning.

- | | |
|-------|------------------------------------------------------------------------|
| _____ | a. a gas produced by photosynthesis, chemical formula O_2 |
| _____ | b. the liquid involved in photosynthesis, chemical formula H_2O |
| _____ | c. a gas absorbed by photosynthesis, chemical formula CO_2 |
| _____ | d. a green pigment found in leaves for photosynthesis |
| _____ | e. a sugar produced by photosynthesis, chemical formula $C_6H_{12}O_6$ |
| _____ | f. pores on the underside of a leaf to control gas exchange |

5. Use the words from the book to label the cross section of a leaf.



6. Answers

i.

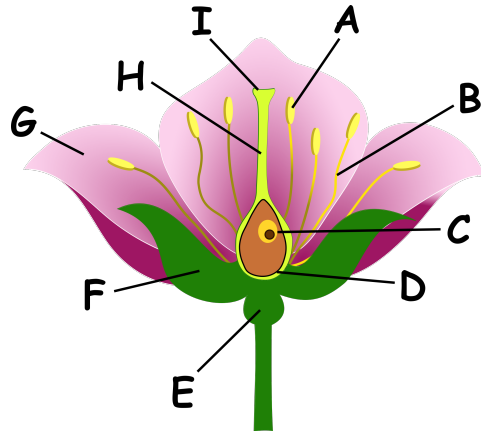
ii.



Student Answer Sheet: Flowering Plants and Seed Dispersal

1. Using the book, complete the gap filling exercise on Flowering Plants and Seed Dispersal below.

2. Use the words from the book to label the parts of a flower.



3. Use the book to write the correct description next to the flower's parts.

- a. Produced when pollen and ovule fuse, can grow into a new plant
- b. The female sex cell (egg equivalent)
- c. The male sex cell (sperm equivalent)
- d. Where pollen is produced and stored
- e. Supports the anther
- f. Where pollen lands to fertilise the ovule
- g. After fertilisation the ovary develops into this



4. Using the book put the letters a. to g. in the correct order for a plant undergoing cross pollination because of a honey bee flying from one plant to another.

1st →

2nd →

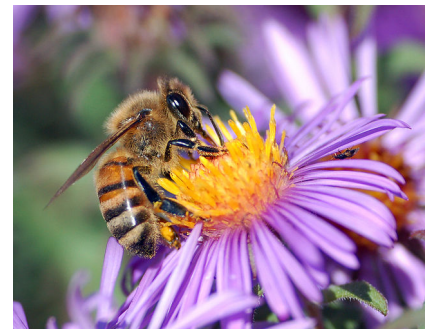
3rd →

4th →

5th →

6th →

7th →



5. Use the questions in the book to write about why each statement is important.

- i.
- ii.
- iii.
- iv.
- v.



Sandbox tree seeds can be thrown over 100m far and wide when the fruit explodes!

Student Answer Sheet: Growing up (Adolescence)

1. Using the book, complete the gap filling exercise on Growing up (Adolescence) below.

[Blank area for gap filling exercise]

2. Using the book, write the changes that happen during adolescence in the correct column.



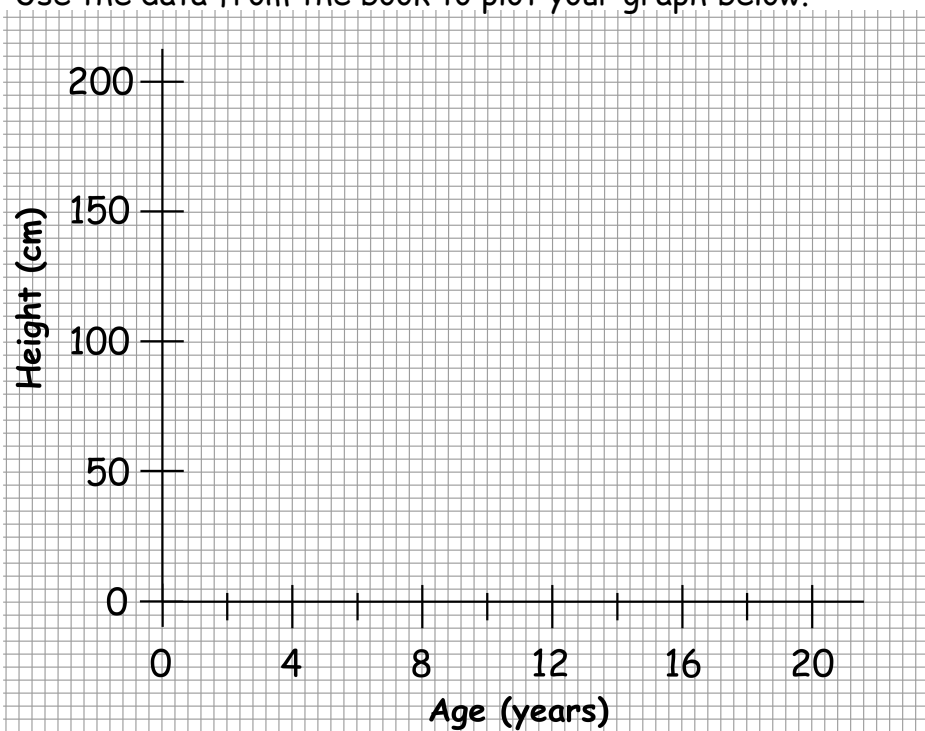
Boys	Girls



Often teenagers don't get enough sleep. Get to bed!



3. Use the data from the book to plot your graph below.



3. Write your answers below.

iii.

iv.

v.

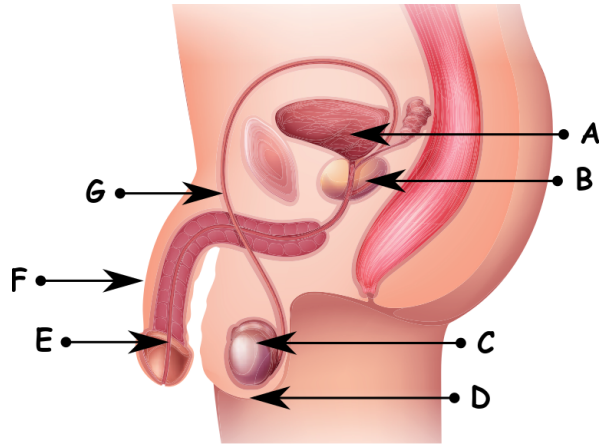
vi.

4. Using the book, write your unscrambled words below

Student Answer Sheet: Reproduction in Humans, Men

1. Using the book, complete the gap filling exercise on Reproduction in Humans, Men below.

2. Using the words from the book, label the diagram opposite.

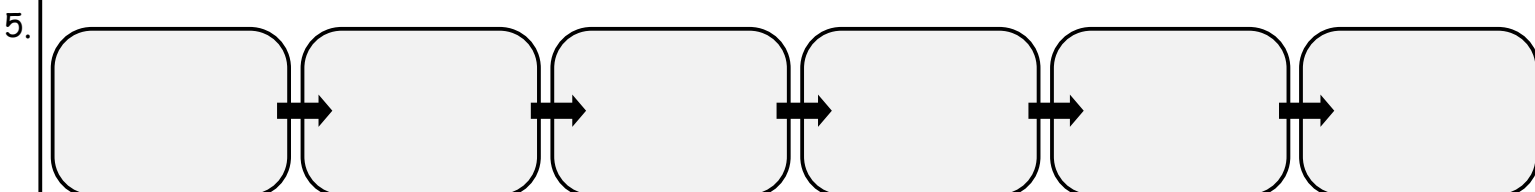


3. Using the book, write the correct description next to the organ in bold.

_____	a. Tube inside the penis for carrying urine and semen
_____	b. Used for urination and carrying sperm
_____	c. The glands that produce sperm
_____	d. A sac of skin that contains the testicles
_____	e. This gland adds a fluid to sperm to provide energy
_____	f. Tube connecting the testes to the urethra
_____	g. Stores urine for excretion

4. Write the statements from the book into the correct column.

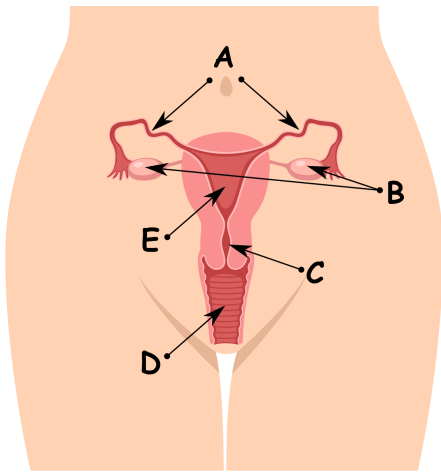
Males before becoming sexually mature	Males after becoming sexually mature



Student Answer Sheet: Reproduction in Humans, Women

1. Using the book, complete the gap filling exercise on Reproduction in Humans, Women, below.

2. label the diagram using the words in bold from the book.

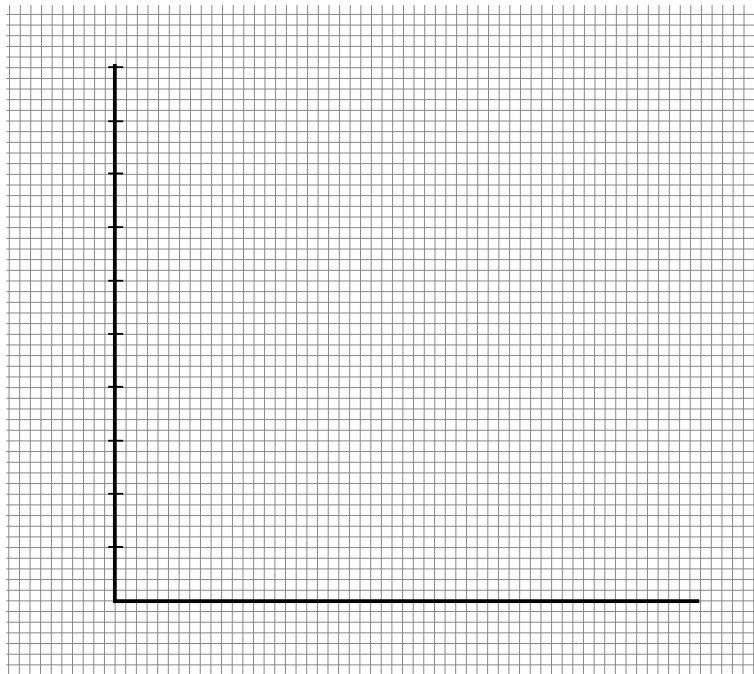


3. Use the book to write the correct word next to the correct description.

- | | |
|-------|--------------------------------------|
| _____ | a. an opening for childbirth and sex |
| _____ | b. where a woman's eggs are made |
| _____ | c. acts like a door to the womb |
| _____ | d. carries eggs to the uterus |
| _____ | e. where the baby grows |
| _____ | f. the release of an egg |

4. Write the unscrambled words from the book below.

5. Use the data from the book to plot your bar chart below.



b. Write your answers below.

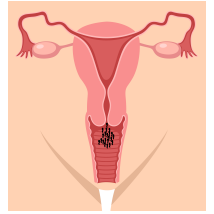
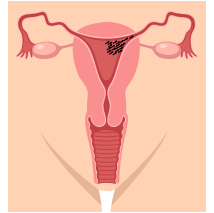
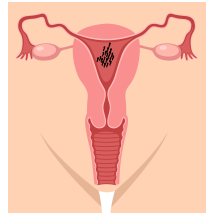
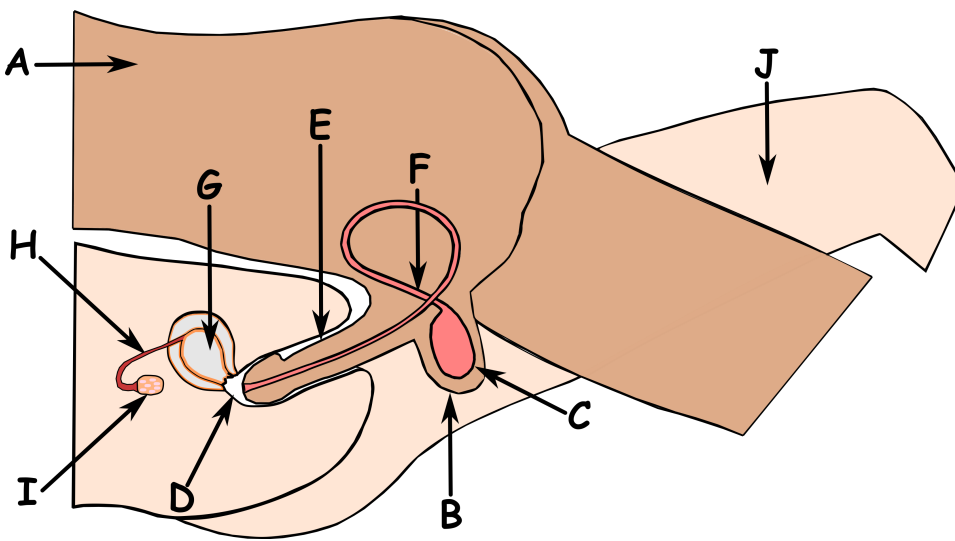
- i.
- ii.
- iii.
- iv.
- v.
- vi.

advantages	disadvantages

Student Answer Sheet: Sexual Intercourse and Pregnancy

1. Using the book, complete the gap filling exercise on Sexual Intercourse and Pregnancy below.

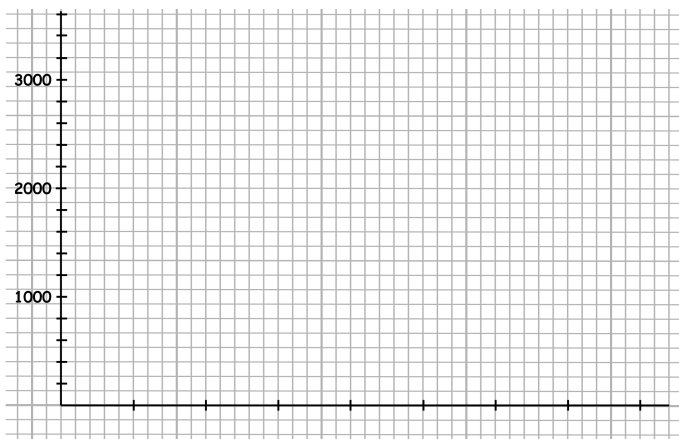
2. i. Using the words from the book, label the diagram below. ii. Label the stages showing after intercourse.



3. Using the book, write your answers in the space below.

- | | |
|------|-------|
| i. | vi. |
| ii. | vii. |
| iii. | viii. |
| iv. | ix. |
| v. | x. |

4. i. Plot your graph opposite.

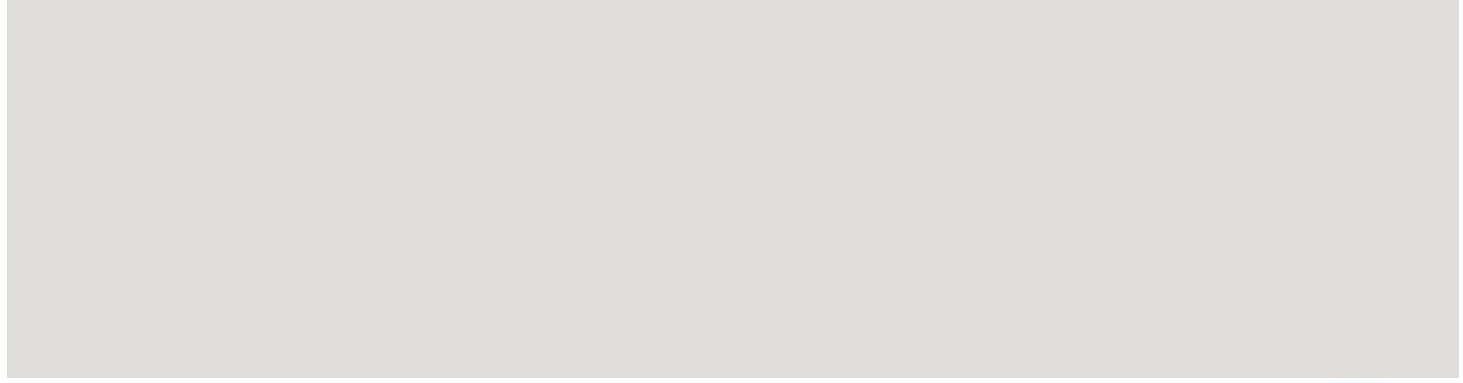


Write your answers below

- ii.
- iii.
- iii.

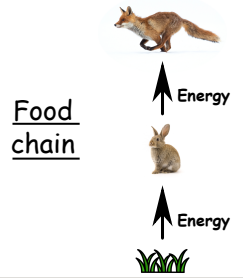
Student Answer Sheet: Food Chains and Webs

1.

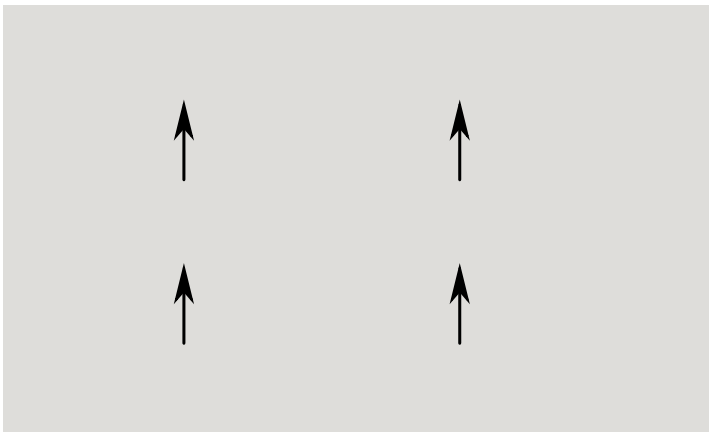


2. i. Use the book to put the producers and consumers in the correct column.

	producer	consumer	consumer
a.	→	→	→
b.	→	→	→
c.	→	→	→
d.	→	→	→
e.	→	→	→



ii. Write food chains **a.** and **b.** from the book below and show how they can form a food web.



3. Use the book to write your answers below.

-
-
-
- Use the book to solve the jumbled words and write your answers below.

4. Use the pond food web from the book to write your answers below.

-
-
-
-
-
-
-

5. a. Food chains for question 5 a. from the book.

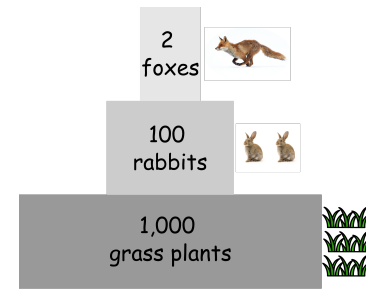


b. Your answer about being a vegetarian below.

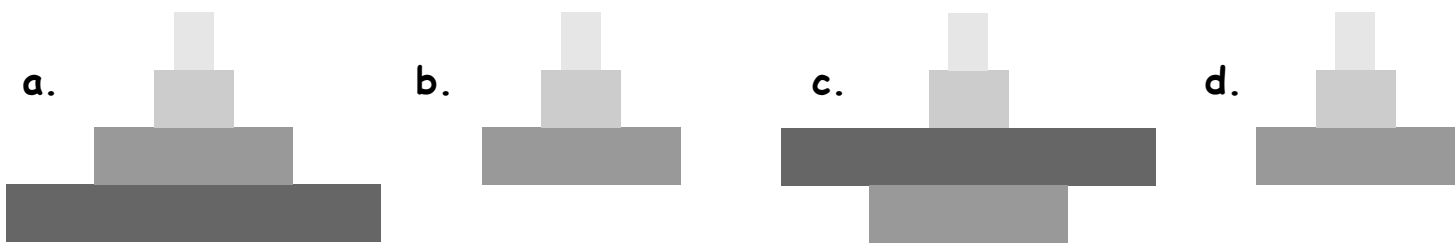
Student Answer Sheet: Pyramids of Numbers and Toxins

1. Using the book, complete the gap filling exercise on Pyramids of Numbers and Toxins below.

Example
Pyramid of Numbers



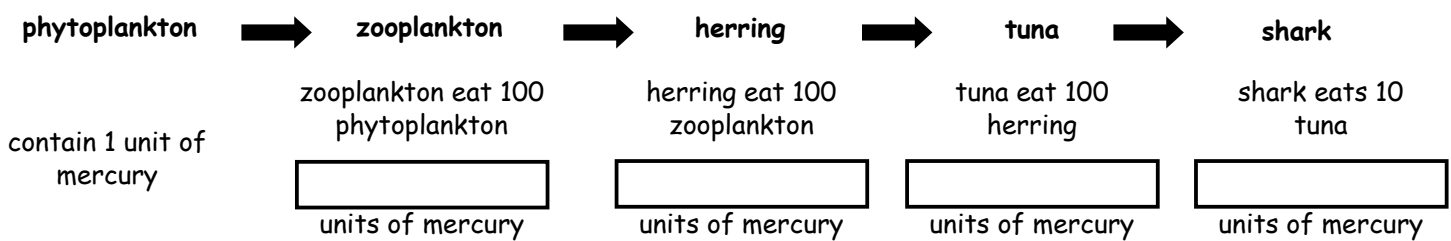
2. Label each level in the pyramid of numbers using the information in the book.



3. Draw your own pyramid of numbers for the food chains shown in the book.



4. i. Complete the units of mercury using the numbers from the book.



Complete your answers from the book below.

ii.

iii.

5. Complete your answers from the book below.

i.

v.

ii.

vi.

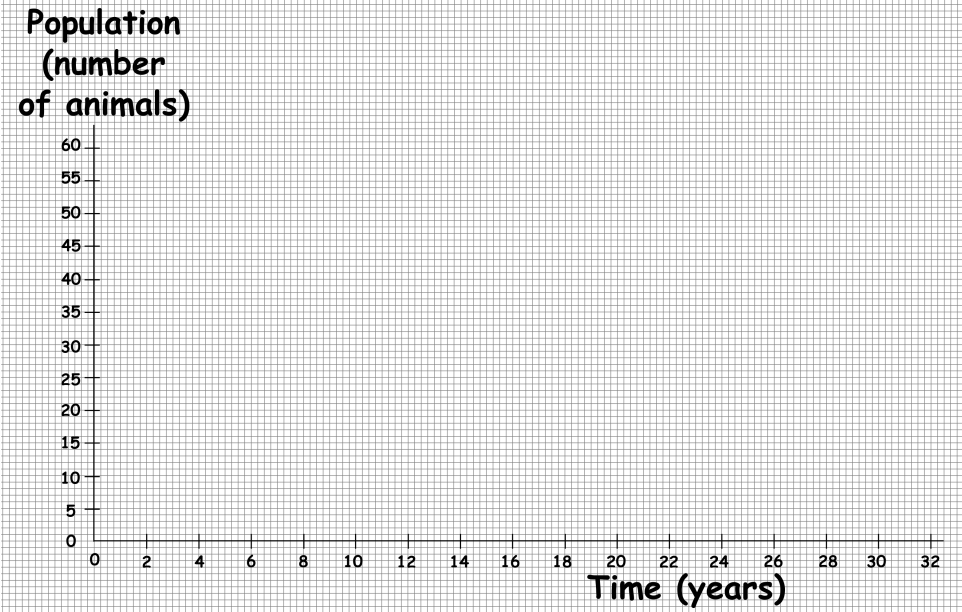
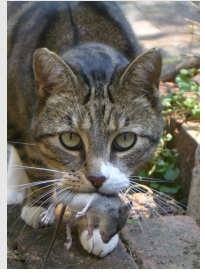
iii.

vii.

iv.

Student Answer Sheet: Predator, Prey and Populations

1. Using the book, complete the gap filling exercise on Predator, Prey and Populations below.



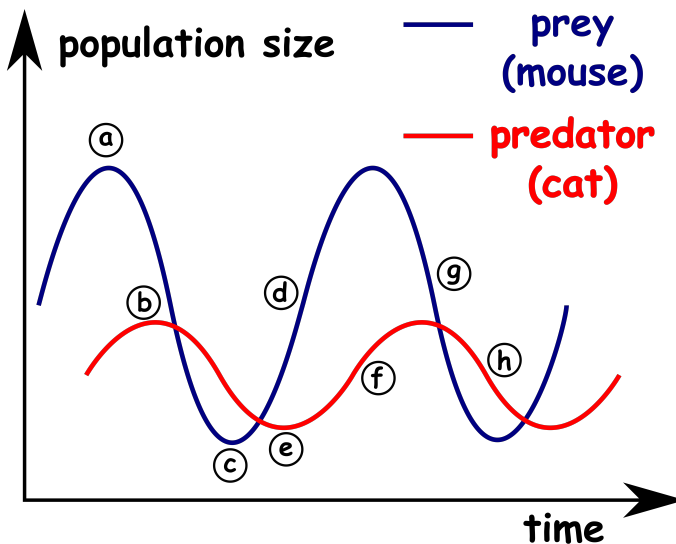
3. i. Using the data from the book complete your graph opposite.

Write your answers from the book below.

ii.

iii.

2. Label **a.** to **h.** on the predator prey graph using the descriptions in bold from the book.



4. i. Use the book to write your unscrambled words below.

Write your sentence book below.
ii.

Write your answer from the book below.
5 i.

5 ii.

Student Answer Sheet: Genetics and Inheritance

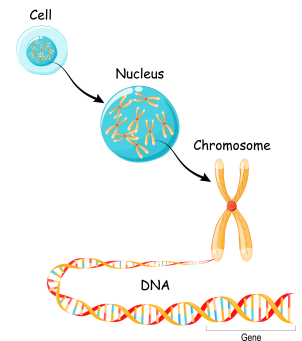
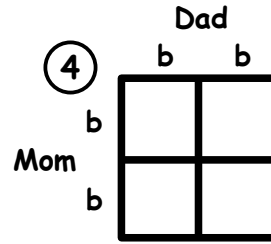
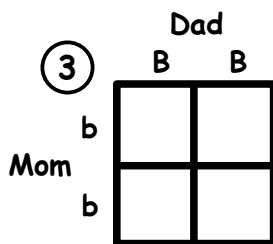
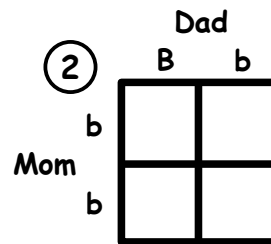
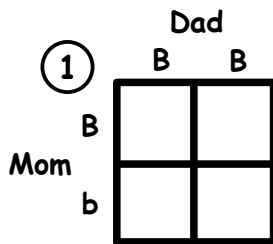
1. Using the book, complete the gap filling exercise on a Genetics and Inheritance below.

2. Use the words in bold from the book to write the correct word next to the correct description.

- | | |
|-------|-----------------------------------------------------------------|
| _____ | a. Only produces the characteristic with another weaker gene |
| _____ | b. Sections of DNA that carry the information for our traits |
| _____ | c. Carry genetic information |
| _____ | d. A feature or trait of an individual e.g. eye colour |
| _____ | e. A stronger gene that determines the characteristic |
| _____ | f. Traits due to effects of the environment, e.g. a sun tan |
| _____ | g. Molecule that makes up chromosomes, has a double helix shape |

3. Using the example in the book to help, complete the Punnett Square combinations 1. to 4. and state how many offspring have blue eyes out of the four possible outcomes.

Punnett squares



4. i. Using the book, put the examples in the best column.

Genetic traits	Environmental traits

5. Write your answer about GM below.

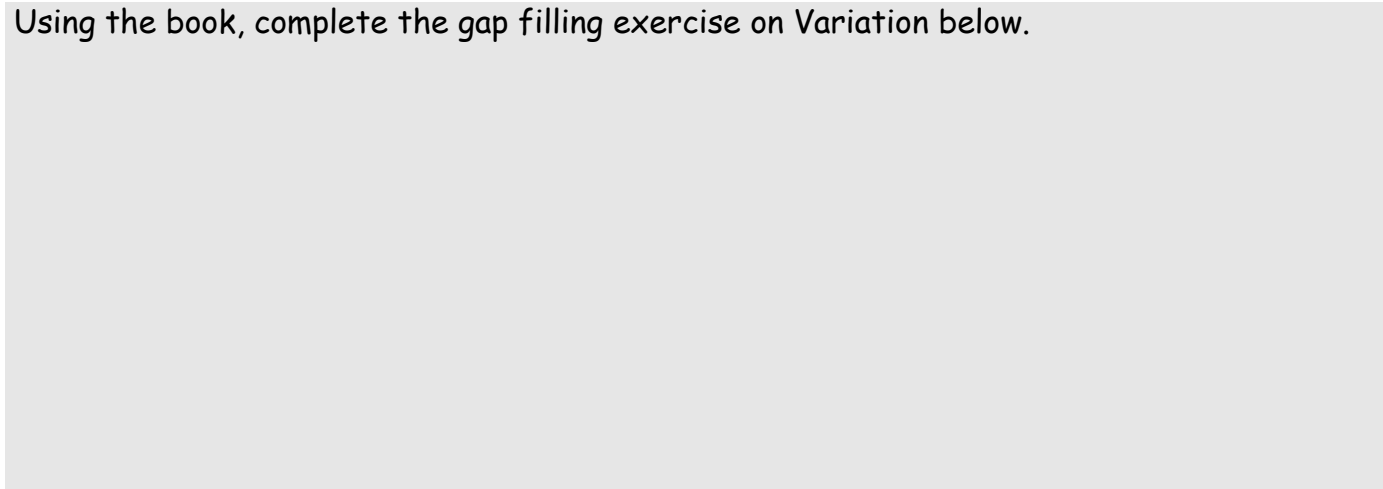
ii. Traits influenced by environment and genes.

Blank space for writing answers to question 4.ii.

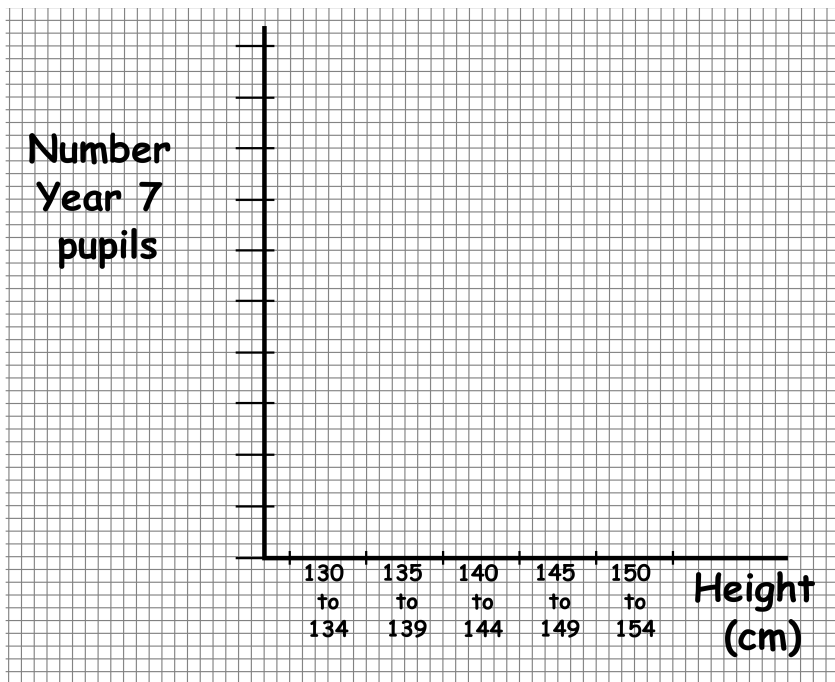
Blank space for writing answers to question 5.

Student Answer Sheet: Variation

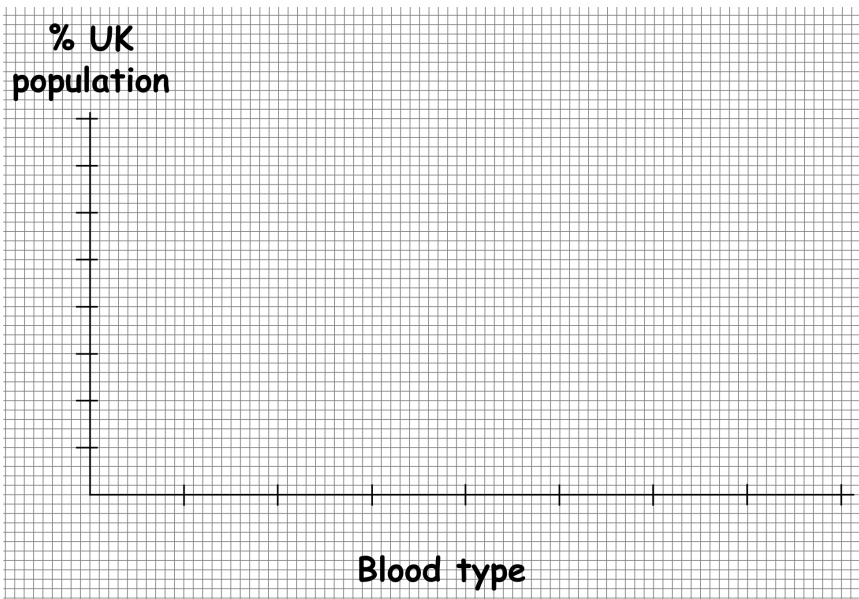
1. Using the book, complete the gap filling exercise on Variation below.



2. i. Use the data from the book to plot your histogram on the grid provided below.



ii. Using the data from the book, plot your bar chart of percentage blood type on the grid provided.



3. Using the book, write the traits in the correct column.

Continuous data	Discontinuous data

4. Write your answer about environmental factors below.

i.

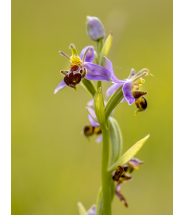
ii.



Student Answer Sheet: Adaptation

1. Using the book, complete the gap filling exercise on Adaptation below.

2. i. Using the book, unscramble the words that describe some of the characteristics of the species shown.



i. Characteristics

Characteristics

Characteristics

Characteristics

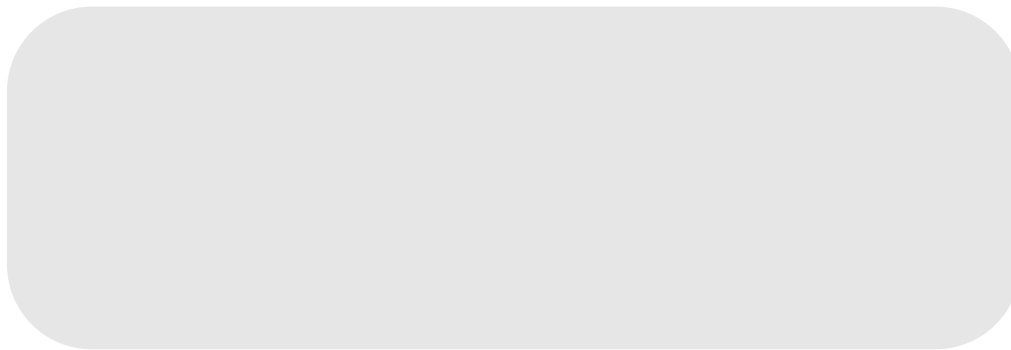
ii. Trait explanation

Trait explanation

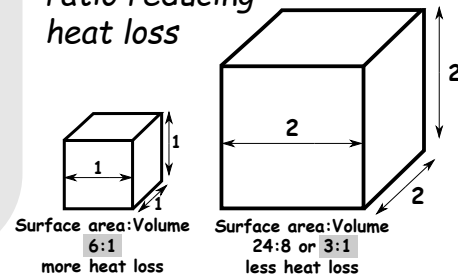
Trait explanation

Trait explanation

3. My own adapted animal design.



Polar bears have a small surface area to volume ratio reducing heat loss

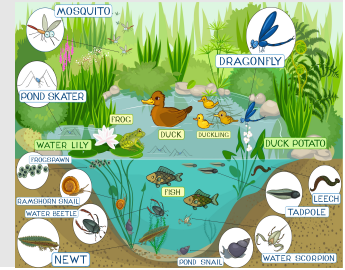


4. Using the book, write your answers in the space below.

- | | |
|------|-------|
| i. | v. |
| ii. | vi. |
| iii. | vii. |
| iv. | viii. |

Student Answer Sheet: Biodiversity and Gene Banks

1. Using the book, complete the gap filling exercise on Biodiversity and Gene Banks in below.



2. i. Using the images from the book to help, complete the 'Diverse or not and why?' box.

A meadow

Diverse or not and why?

Coral reef

Diverse or not and why?

A field with cows grazing

Diverse or not and why?

A rain forest

Diverse or not and why?

A potato field

Diverse or not and why?

Cryobank



ii. Write your unscrambled ecosystem words below.

Blank space for writing unscrambled ecosystem words.

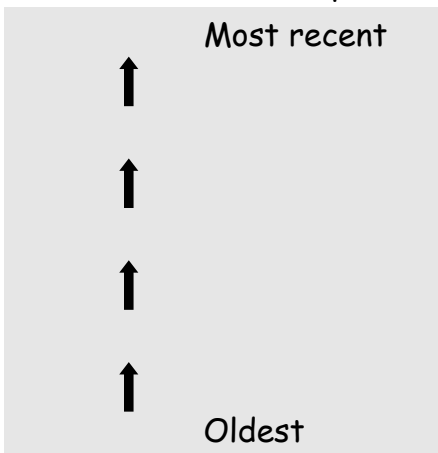
3.

Advantages	Disadvantages

Student Answer Sheet: Evolution and Natural Selection

1. Using the book, complete the gap filling exercise on Evolution and Natural Selection below.

2. i. Write **a.** to **e.** in order from oldest to most recent in the evolution of Homo sapiens.



ii. Write your unscrambled words below for the things humans can do because of their big brains.









- | | |
|----|-----|
| 1. | 8. |
| 2. | 9. |
| 3. | 10. |
| 4. | 11. |
| 5. | 12. |
| 6. | 13. |
| 7. | 14. |

3. Use the words in bold from the book to write the correct word next to the correct description.

_____	a. the characteristics of an animal
_____	b. animals with the best adaptations for survival
_____	c. this happens to genes leading to new traits
_____	d. to change over time
_____	e. the surroundings and external conditions
_____	f. carry the information for how we grow

4. i. Write the trait you know of in the boxes below.

ii. Write your answers below.

Cheetah 	Elephant 	Giraffe 	Camel 	
Polar bear 	Venus flytrap 	Cactus 	Shark 	

Student Answer Sheet: The Blood and Fighting Disease

1. Using the book, complete the gap filling exercise on The Blood and Fighting Disease below.

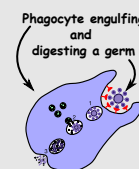
2. Use the book to match the components of the blood to what they do.

_____	a. the liquid part of blood that carries platelets, red and white blood cells
_____	b. clots the blood at wounds to stop bleeding
_____	c. carry oxygen around the body
_____	d. produce antibodies and fight infection



3. Using the book, write your answers in the space below.

- | | |
|------|-------|
| i. | vi. |
| ii. | vii. |
| iii. | viii. |
| iv. | ix. |
| v. | |



4. Using the words from the book, answer the 'trivia' questions below.

- Which blood cell carries oxygen?
- What is the liquid portion of blood called?
- What % of blood are white blood cells?
- Fish don't have blood?
- There are 8 main blood groups?
- O+ is the most common blood group?
- A well known saying is 'it is like getting blood from a _____'?
- The colour of blood is always _____?
- It is a misconception that blood is _____?
- An average adult has about two pints of blood?
- Hypertension is the medical name for _____?
- Sickle cell anemia is a blood _____?

5. Find the 'blood' words from the book in the word search below.



Student Answer Sheet: Food Tests

1. Using the book, complete the gap filling exercise on Food Tests below.

Protein molecule
(connected amino acids)



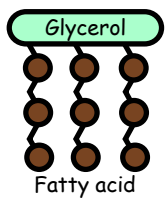
Sugar molecules



Starch molecule
(connected sugar molecules)

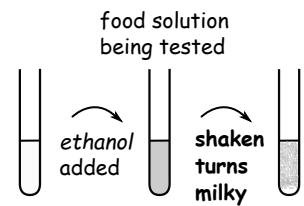
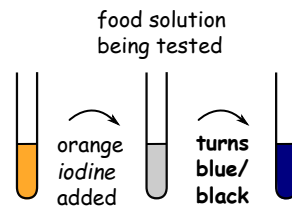
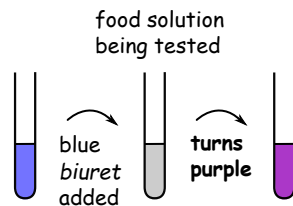
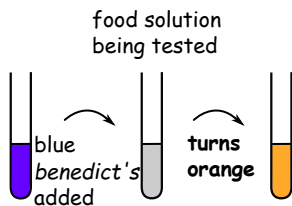


Fat molecule



2. i. Match the food test to what it tests for in foods by writing the correct description from the book next to the correct food group.
ii. Match the words in bold to the correct diagrams by drawing arrows.

<u>Description</u>	<u>Tests for</u>
_____	Starch
_____	Protein
_____	Fats (lipids)
_____	Sugars



3. Complete the 'food contains' column using the test results from the book.

Test food	Food contains
Pasta	
Cheese	
Rice	
Ham	
Nuts	
Haribos	

4 i. Order of items.

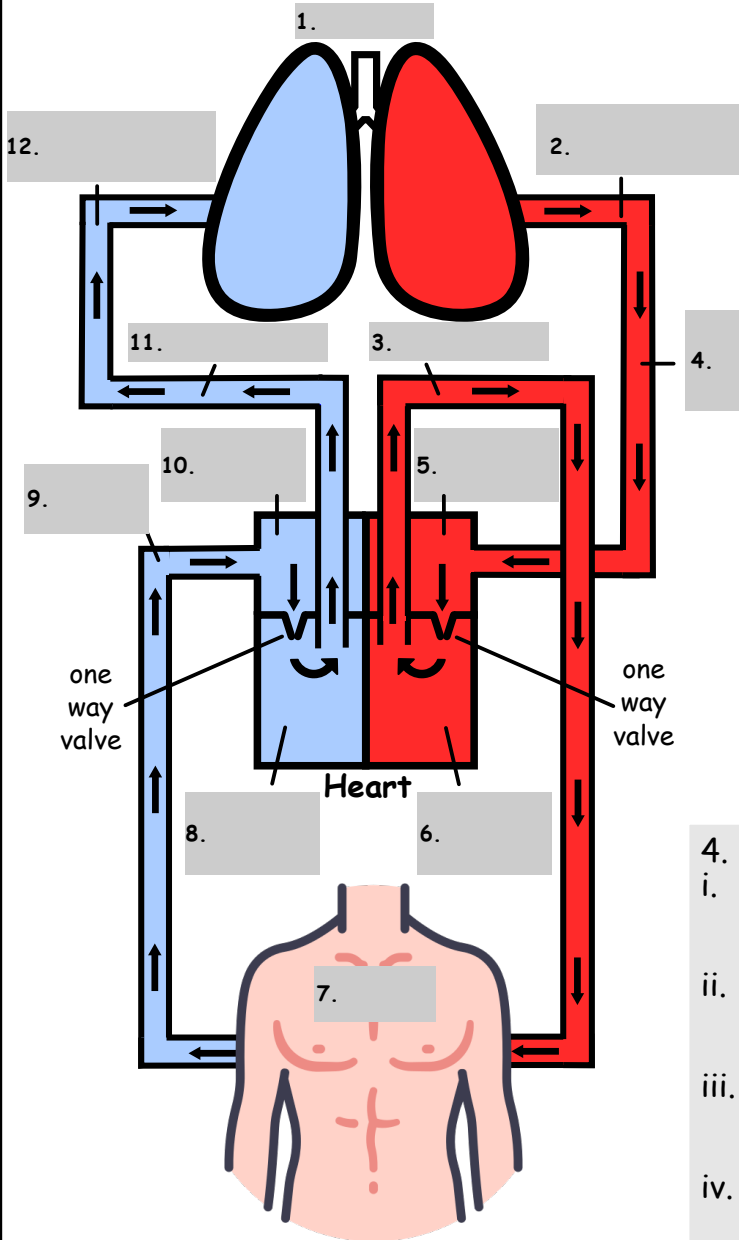
- 1st
- 2nd
- 3rd
- 4th
- 5th
- 6th

4. ii.

iii.

Student Answer Sheet: The Circulatory System

1. Using the book, complete the gap filling exercise on The Circulatory System below.



2. After memorising, use the names in bold from the book to help label the diagram of the circulatory system shown opposite.

3. Write the statements from the book next to the correct names in bold.

- Oxygenated blood _____
- Arteries carry blood _____
- Vena cava _____
- Veins carry blood _____
- Aorta _____
- Valves _____

4. Answer the questions from the book below.

- i.
- ii.
- iii.
- iv.
- v.
- vi.
- vii.
- viii.

