Organisation

Define the following key terms:

Cell	
Tissue	
Organ	
Organ System	
Organism	

Name the following structures and label whether they are cells, tissues, organs, organ systems or organisms.


P_____
C_____


H_____


M_____
T_____


L_____


X_____


S_____


M_____
C_____


C_____
S_____


P_____


H_____

From the list to the left, order the different structures from smallest to largest:

Animal	Plant

Convert these sizes into standard form:

Red Blood Cell = 0.008mm

Nerve Cell = 0.004mm

Sperm Cell = 0.05mm

Muscle Cell = 0.5mm

Liver Cell = 0.06mm

Skin Cell = 0.1mm

Platelet = 0.002mm

Bacteria = 0.005mm

Organisation

Define the following key terms:

Cell	Smallest structural and functional unit of an organism.
Tissue	Group of similar cells performing a similar function
Organ	Group of tissues that work together to perform a function.
Organ System	Group of organs that work together to perform a function.
Organism	Group of organ systems that work in tandem to enable survival.

Name the following structures and label whether they are cells, tissues, organs, organ systems or organisms.


Plant Cell


Heart


Muscle Tissue


Leaf


Xylem


Stem


Muscle Cell


Circulatory System


Plant


Human

From the list to the left, order the different structures from smallest to largest:

Animal	Plant
Muscle Cell	Palisade Cell
Muscle Tissue	Xylem
Heart	Leaf
Circulatory System	Stem
Human	Plant

Convert these sizes into standard form:

Red Blood Cell = 0.008mm
8.0×10^{-3}

Nerve Cell = 0.004mm
4.0×10^{-3}

Sperm Cell = 0.05mm
5.0×10^{-2}

Muscle Cell = 0.5mm
5.0×10^{-1}

Liver Cell = 0.06mm
6.0×10^{-2}

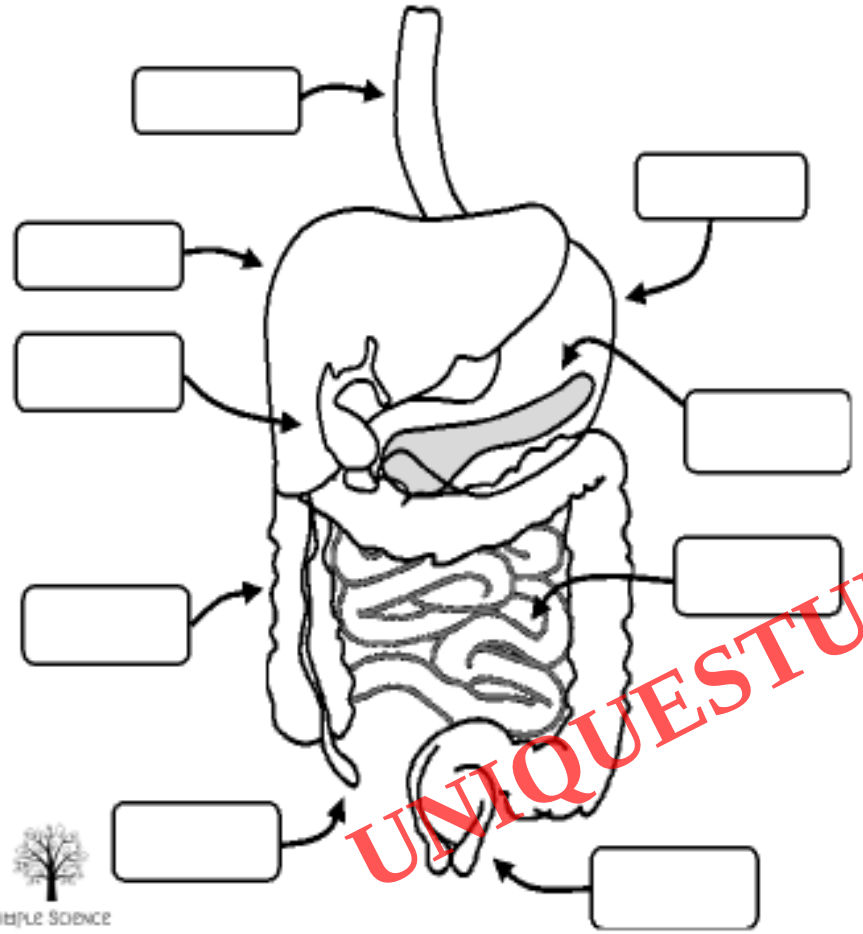
Skin Cell = 0.1mm
1.0×10^{-1}

Platelet = 0.002mm
2.0×10^{-3}

Bacteria = 0.005mm
5.0×10^{-3}

The Digestive System

Label the different organs found in the digestive system.



Describe the functions of each organ in the digestive system.

Oesophagus	
Liver	
Stomach	
Pancreas	
Gall Bladder	
Small Intestine	
Large Intestine	
Appendix	
Rectum	

Describe the two functions of bile in the digestive system.

1. 2.

The Digestive System

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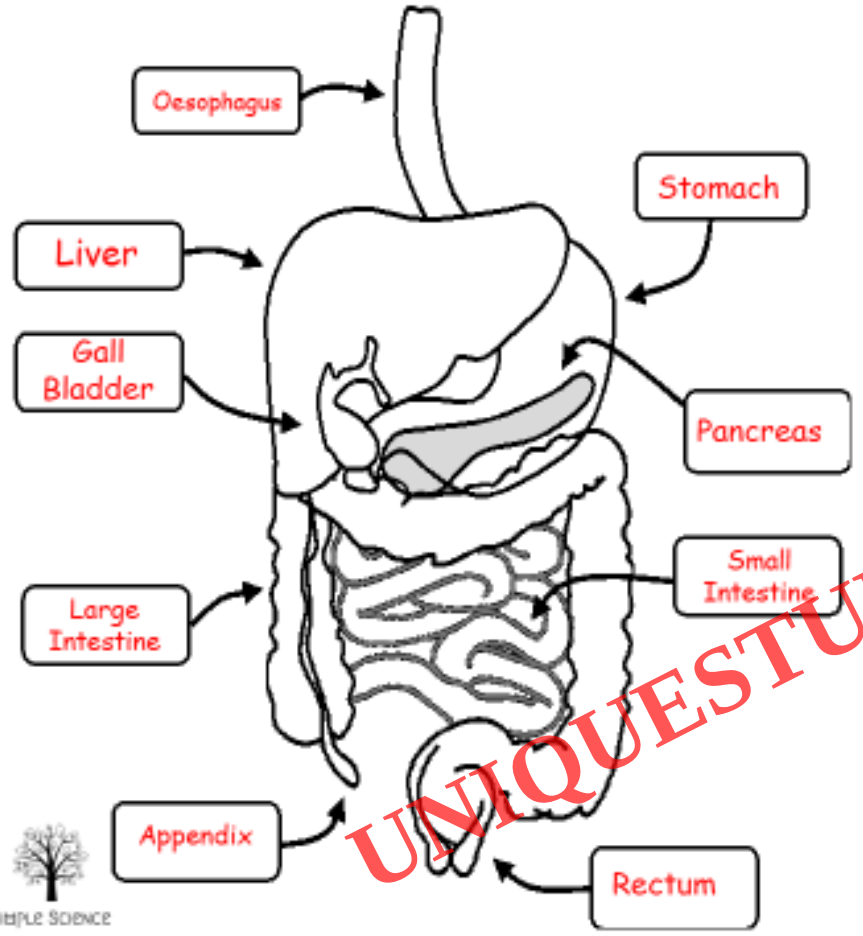

Describe the functions of each organ in the digestive system.

Oesophagus	This is the structure that pushes food down towards the stomach.
Liver	Produces bile.
Stomach	Contains acids (HCl) that provides optimum conditions for enzymes.
Pancreas	Releases enzymes that are required for digestion.
Gall Bladder	Stores and releases bile into the small intestine.
Small Intestine	Absorbs nutrients from food and contains villi.
Large Intestine	Absorbs excess water from food.
Appendix	Repopulates to gut with good bacteria needed to digest food.
Rectum	This is the end destination of digested food before being expelled.

Describe the two functions of bile in the digestive system.

1. It is alkaline to neutralise hydrochloric acid from the stomach.
2. Emulsifies fat to form small droplets which increases the surface area.