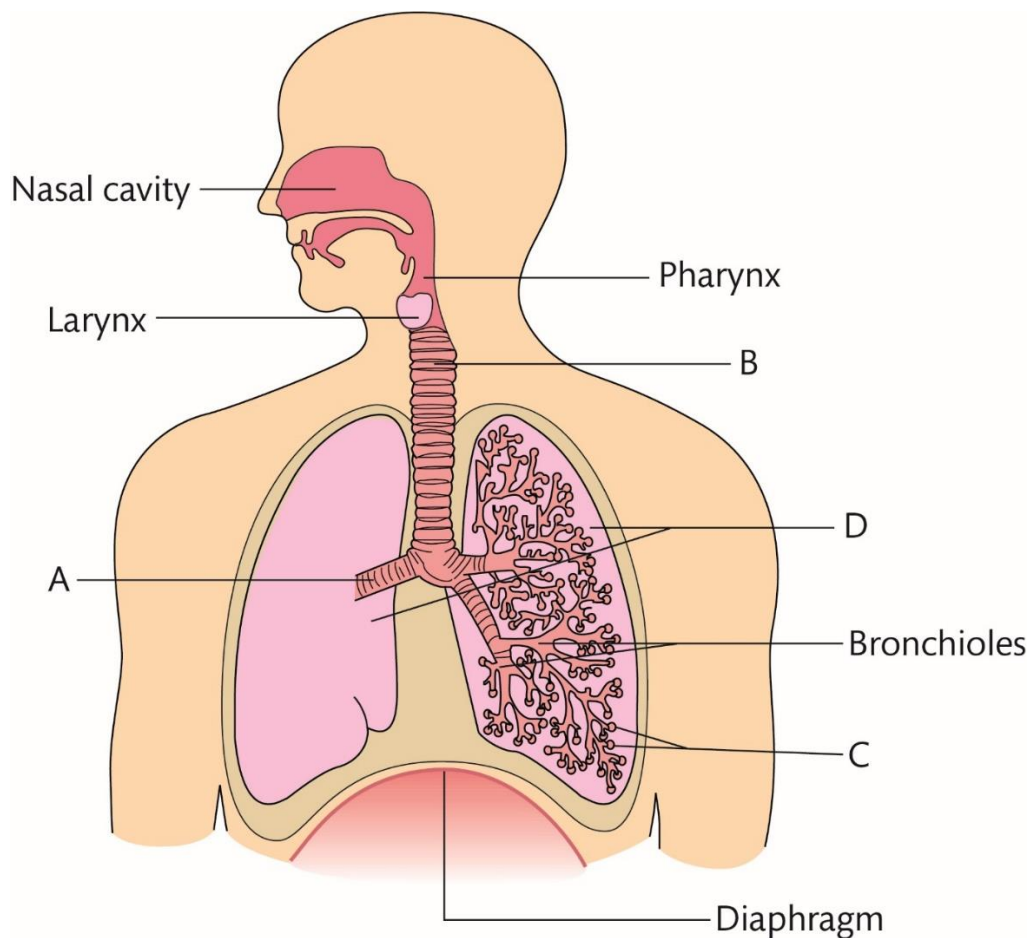


Summer Independent Learning

Subject/Group	BTEC Extended Diploma in Health and Social Care (Y12-Y13)
Topic	Anatomy and Physiology
Timescale	20 hours
To be completed by	This work must be completed and handed in to your subject teacher on the first day of term.

PART 1: RESPIRATORY SYSTEM

The respiratory system allows oxygen in the air to enter the body, and to be taken up by cells and tissues. The respiratory system also eliminates carbon dioxide from the body.



TASK 1: Which letters on the diagram show the following parts of the body?

Bronchi: _____

Lungs: _____

Trachea: _____

Alveoli: _____

TASK 2: Produce a table to explain the structure and function of the following parts of the respiratory system: *Trachea, bronchi, lungs, bronchial tree, and alveoli.*

TASK 3: Describe how the tissue in the nose is adapted to its function (*refer to the characteristics of ciliated epithelial tissue that prevent the entry of foreign bodies into the respiratory system, and that warm and moisten air*).

TASK 4: Explain the role of the intercostal muscles and the diaphragm in the process of inspiration and expiration.

TASK 5: Watch the following video: <https://www.youtube.com/watch?v=57byXpOUpsU>. Using the space provided below, draw a diagram showing the process of 'Gaseous exchange' and 'Diffusion':

PART 2

TASK 1: Asthma is a common disorder of the respiratory system.

You need to research the disorder and read the following case study

<https://aire.health/blogs/news/living-with-asthma-a-case-study> to be able to complete the table below identifying the causes, symptoms and treatment for asthma:

Causes	Symptoms	Treatment

TASK 2: Pneumonia is a common disorder of the respiratory system.

You need to research the disorder to be able to complete the table below identifying the causes, symptoms and treatment for pneumonia:

Causes	Symptoms	Treatment

PART 3 –Metacognition

TASK 1: Produce an A3 mind map, identifying all of the following body organs: Heart, lungs, brain, stomach, liver, pancreas, duodenum, ileum, colon, kidneys, bladder, ovaries/testes, uterus, and skin.

You need to include a picture of the organ, the structure and the function of each.

TASK 2: Answer the following exam questions.

Explain the function of mitochondria **(3 marks)**

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Outline the role of the following in the cell **(4 marks)**

Golgi apparatus

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Centrioles

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.....

Explain the function of two kinds of connective tissue other than blood **(4 marks)**

1

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2

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State two types of muscle tissue **(2 marks)**

1

.....

2

.....

**If you have difficulty in accessing IT resources to produce this work, you may complete it by hand, making sure you write clearly and neatly.
Make sure you have put your name on all sheets of paper.**