

The table below contains links to websites or YouTube videos you may find helpful when studying for your Level 2 or 3 Anatomy and Physiology, Level 2 Principles of Exercise or Nutrition exams.

If any of the links don't work please let us know by emailing us at <u>ymcafit.blendedlearning@ymca.co.uk</u> – thanks!

| Unit and<br>level  | Topics covered                               | Description  | Link   |
|--------------------|--|--|--|
| Level 2 & 3<br>A&P | Skeletal system                              | Diagram of human skeleton and detailed description                             | https://en.wikipedia.org/wiki/Human_skeleton   |
| Level 2<br>A&P     | Skeletal system – structure and joints       | Detailed video of skeleton structure and joints                                | https://www.youtube.com/watch?v=UXtG052Klkg  |
| Level 2 & 3<br>A&P | Skeletal system – parts of the skeleton      | x8 sections on different parts of the skeleton, with diagrams and descriptions | https://courses.lumenlearning.com/boundless-ap/table-of-<br>contents/                                    |
| Level 2 & 3<br>A&P | Muscular system – sliding<br>filament theory | A detailed description of the sliding filament theory with diagrams            | https://www.nature.com/scitable/topicpage/the-sliding-filament-<br>theory-of-muscle-contraction-14567666 |
| Level 2<br>A&P     | Muscular system- Functional groups           | Video of muscle actions and muscle functions                                   | www.youtube.com/watch?v=PGDXXUtPw4A  |



| Level 2 & 3<br>A&P | Muscular system – description<br>and breakdown                                     | Detailed description on muscles including diagrams                                     | https://en.wikipedia.org/wiki/Muscle   |
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| Level 2<br>A&P     | Muscular system – three types<br>of muscle   | Muscle types explained with diagrams included  | www.visiblebody.com/learn/muscular/muscle-types  |
| Level 2 & 3<br>A&P | Circulatory system – The heart   | Detailed structure of the heart including diagrams                                     | www.nhlbi.nih.gov/health/health-topics/topics/chd/heartworks                                       |
| Level 2 & 3<br>A&P | Circulatory system – Explained<br>and broken down                                  | Definition and description of the circulatory system and diagrams                      | https://en.wikipedia.org/wiki/Circulatory_system   |
| Level 2 A&P        | Circulatory system – function,<br>definition & anatomy                             | Video on function, definition & anatomy - human  | www.youtube.com/watch?v=yaXna8LmoiY&t=58s  |
| Level 3 A&P        | Circulatory system – Arteries, veins and capillaries                               | Detailed description on arteries, veins and capillaries                                | https://courses.lumenlearning.com/boundless-<br>biology/chapter/mammalian-heart-and-blood-vessels/ |
| Level 2 A&P        | Respiratory system - Structure<br>and function explained and<br>broken down simply | Definition and description of the respiratory system and diagrams                      | www.teachpe.com/anatomy-physiology/the-respiratory-system-<br>breathing/                           |
| Level 2 & 3<br>A&P | Respiratory system - structure and position of organs                              | 3D animation of structure and position of many organs that make the respiratory system | www.youtube.com/watch?v=kacMYexDgHg  |
| Level 2 & 3<br>A&P | Respiratory system - Interactive<br>respiratory guide                              | Interactive respiratory guide including 2d, 3d and rotate diagrams.                    | www.innerbody.com/anatomy/respiratory  |



| Level 2 & 3<br>A&P | Energy systems - Explained and broken down          | Detailed description of the energy systems  | https://en.wikipedia.org/wiki/Bioenergetic_systems                    |
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| Level 2 & 3<br>A&P | Energy systems - three energy systems               | Three energy systems explained  | www.brianmac.co.uk/energy.htm   |
| Level 2 & 3<br>A&P | Energy systems – energy for<br>muscular movement    | Video explaining the energy systems<br>for muscular movement through<br>diagrams      | www.youtube.com/watch?v=yH6zO0EkxHI                                   |
| Level 2 & 3<br>A&P | Nervous systems – facts,<br>functions and diseases  | Information on facts, functions and diseased of the nervous system including diagrams | www.livescience.com/22665-nervous-system.html                         |
| Level 2 & 3<br>A&P | Nervous system - Nerves                             | Video on defining what a nerve is   | www.youtube.com/watch?v=M-nZxCOvMIA                                   |
| Level 2 & 3<br>A&P | Nervous system – Motor<br>neurons                   | Motor neurons explained and diagrams provided   | https://en.wikipedia.org/wiki/Motor neuron disease                    |
| Level 2 & 3<br>A&P | Endocrine system – Overview of the endocrine system | Detailed text on overview of the Endocrine system                                     | https://www.endocrineweb.com/endocrinology/about-endocrine-<br>system |
| Level 3 A&P        | Endocrine system - glands                           | Description of the different glands and the hormones they secrete                     | www.innerbody.com/image/endoov.html                                   |
| Level 3 A&P        | Endocrine systems – glands and hormones             | Short videos, text and diagrams on glands   | www.visiblebody.com/learn/endocrine/glands                            |



| Nutrition | Fats – Monounsaturated,<br>polyunsaturated, saturated and<br>trans fats | Description of what<br>Monounsaturated, polyunsaturated,<br>saturated and trans fats and example<br>diagrams | www.bhf.org.uk/heart-health/preventing-heart-disease/healthy-<br>eating/fats-explained |
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| Nutrition | Fats – Good and bad   | Video explanation on good and bad fats   | www.youtube.com/watch?v=QhUrc4BnPgg  |
| Nutrition | Carbohydrates – explanation on different carbohydrates                  | Explanation on different carbohydrates   | www.rsc.org/Education/Teachers/Resources/cfb/Carbohydrates.<br>htm                     |
| Nutrition | Carbohydrates - health  | Video on different carbs and how they impact your health   | www.youtube.com/watch?v=wxzc_2c6GMg  |
| Nutrition | Proteins – explained  | Text on what protein is, different proteins, what are they used for and how much do we need                  | www.medicalnewstoday.com/articles/196279.php   |
| Nutrition | Proteins – structure and function                                       | Video on protein structure and function  | www.study.com/academy/lesson/proteins-i-chemical-<br>structure.html                    |
| Nutrition | Vitamins and Minerals -<br>explained                                    | Text and diagrams on different minerals with diagram examples.   | www.goodnet.org/articles/11-essential-vitamins-minerals-your-<br>body-needs            |
| Nutrition | Vitamins and Minerals -   | Animation of vitamin and minerals  | www.nebraskamed.com/3d-medical-atlas/endocrine/vitamins-<br>and-minerals               |
| Nutrition | Fluids - Water, hydration and health                                    | Detailed text on Water, hydration and health   | www.ncbi.nlm.nih.gov/pmc/articles/PMC2908954/  |



| Nutrition                 | Fluids – hydration levels  | Short video on 8 signs of dehydration   | www.youtube.com/watch?v=FuAoP0BpGGk  |
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| Nutrition                 | Digestive system   | Digestive system explained through detailed text and 3d rotating diagrams           | www.innerbody.com/image/digeov.html  |
| Nutrition                 | Digestive system   | Slide show of pictures and description on how the digestive system works            | www.mayoclinic.org/digestive-system/sls-20076373?s=6   |
| Principles of<br>Exercise | Components of fitness – five components of fitness                           | Text on each component of fitness   | www.health-galaxy.com/5-components-of-physical-fitness.html  |
| Principles of<br>Exercise | Motor skills and motor skills<br>training – three stages of motor<br>fitness | Cognitive, associative and<br>autonomous skills explained through<br>text and table | www.humankinetics.com/excerpts/excerpts/understanding-<br>motor-learning-stages-improves-skill-instruction |
| Principles of<br>Exercise | Special populations - exercises  | Video information regarding exercises for special populations                       | www.youtube.com/watch?v=HGOyBeVtnRs  |
| Principles of<br>Exercise | Special populations -<br>programmes  | Designing exercise programmes for special populations                               | www.nrpt.co.uk/training/special/index.htm  |



| Principles of<br>Exercise | CV training – Different CV<br>training with advantages and<br>disadvantages | Text on different CV training with advantages and disadvantages | www.teachpe.com/resources/gcse/gcse-physical-<br>training/training-methods            |
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| Principles of<br>Exercise | Endurance training –<br>definitions/adaptations/method<br>s                 | Detailed information on endurance training and methods          | https://en.wikipedia.org/wiki/Endurance   |
| Principles of<br>Exercise | Muscular Strength - adaptations   | Detailed description on definition and adaptations to training  | www.conanfitness.com/articles/adaptations-to-training-2/                              |
| Principles of<br>Exercise | Flexibility – purpose of flexibility  | Text on the importance and purpose of flexibility               | www.humankinetics.com/excerpts/excerpts/the-importance-<br>and-purpose-of-flexibility |