## **BTEC Sport Science**

Please complete one line from the task list below. All students must complete the middle task as part of their line:

Research some of the nutritional strategies used by athletes in order to gain a (legal) sports performance advantage. Some ideas may include: - Protein intake - Hydration - Carbohydrate intake	Research the 1968 (Summer) Olympic Games that were in Mexico City. What was significant about the altitude of this location and what impact did it have on the performance of the competitors.	"The Last Dance", the highly popular sports documentary regarding Michael Jordan has become essential watching for many over the last few months. What are your views on his level of competiveness, aggressive and belittling actions with teammates in pursuit of winning? Can it be justified?
Using an example of anyone you consider to be an exceptional sports coach (in any sporting activity), explain in detail a wide variety of both the <u>skills</u> and <u>qualities</u> that you believe are required in order to reach this level.	<ul> <li>Participate in an activity for approximately 15mins.</li> <li>Measure and record your heart rate information in beats per minute (bpm): <ul> <li>Before the activity.</li> <li>Every five minutes throughout the activity.</li> <li>At the end of activity.</li> <li>Every two minutes following activity until it goes back to your 'before' activity level.</li> </ul> </li> </ul>	One of the units studied within the qualification uses research methodology. Locate any published piece of sports research and attempt to digest this into one page of information, stating: - What question do they try to answer? - How did they try to answer this question (what test did they use/who did they test)? - What were the results? - What were their conclusions?
Sports men and women have had to mentally compose themselves during the extended lockdown period of the coronavirus. In reference to Weiner's attribution theory, how might an athlete or your choice, choose to explain their likely reduction in skill level during this period?	Draw an anatomically correct diagram of the heart and locate each of the chambers, valves and major blood vessels that bring blood either back to or away from the heart.	Describe some of the causes, effects and impacts of overtraining on an athlete, applying this information with reference to your favourite sporting activity.

## Suggested resource list:

- The Last Dance; Netflix: <u>https://www.netflix.com/gb/title/80203144?source=35</u>
- The Last Dance, youtube clip: <u>https://www.youtube.com/watch?v=fedwa47EWUY</u>
- Guardian article: <u>https://www.theguardian.com/sport/2020/may/24/michael-jordan-was-years-ahead-of-his-game-the-last-dance-showed-that-he-still-is</u>
- Research ideas:
  - <u>https://pubmed.ncbi.nlm.nih.gov/</u> Search for anything you are interested in, and it will search for any research that has occurred within this area.
  - <u>https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004366.pub6/full</u> -Research on the impact that exercise can have on depression.

## Podcasts:

 BBC Sporting Witness: Weekly 10 minute reflections on poignant moments in sport: <u>https://www.bbc.co.uk/programmes/p00j2pn</u>

## Wider Reading:

• 2016, Gledhill, Alan; Gledhill Amy et al, BTEC Nationals Sport and Exercise Science Student Book Paperback, published by Pearson, ISBN-10: 1292133953.