**Physical Education Studies**

**Biomechanics Investigation**

**Units 3 and 4**

**GTPES 2020**

**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Time allowed for this paper: 2 weeks**

**To be conducted during class time and practical lessons**

**Your task is to select one of the following skills to conduct a biomechanical analysis based on a peer’s performance of this skill**

**Select one of the following:**

* **Vortex overhand throw**
* **Standing long jump**
* **30m sprint from crouch start**
* **Basketball shot (free throw)**

1. Develop a check list of the key teaching points of your skill to help you break down and conduct a thorough analysis (9 marks)

|  |  |
| --- | --- |
| Phase | Key teaching points |
| 1 mark for  Preparation | 2 marks per section for relevant/correct teaching points |
| 1 mark for execution or action |  |
| 1 mark for follow through |  |

1. Conduct video analysis of your partner/peer performing your selected skill.

You must decide on the most appropriate angle/s for the purpose of analysis (3 marks)

I have selected the following viewing angle or angles and camera speed because:

1 mark for viewing angle/angles

1 mark for the reasoning behind why this was selected

1 mark for having more than 1 angle to view

1. Outline the steps you undertook to conduct your analysis. Discuss for each step the purpose and outcome. (12 marks)

Step 1 Observation 1 mark

Purpose and Outcome

1 mark for the description of observation and 1 mark for the discussion of what was observed

Step 2 Diagnosis 1 mark

Purpose and Outcome

1 mark for description of diagnosis and 1 mark for what the diagnosis was from the observation

Step 3 intervention 1 mark

Purpose and Outcome

1 mark for the description of intervention 1 mark for discussion of what the intervention would be

Step 4 re-observation 1 mark

Purpose and Outcome

1 mark for description of re-observation, 1 mark for what they did/saw

1. Quantitative analysis can be an effective tool when conducting a biomechanical analysis of skill. Name and justify 2 types of quantitative data you have collected and how that may assist in conducting your biomechanical analysis. (4 marks)

1mark per type of quantitative data and 1 mark for how this data would be used for biomechanical analysis of skill

**END OF INVESTIGATION**