SUGGESTIONS FOR LESSON PLAN

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| **Time** | **Activity** | **Resources** |
| 10 mins | Introduction to the research scientist (photo/video clip and quotes).Background to research topic, and nature of ACL injury.  | Powerpoint Slides 2-4 |
| 5 mins | In pairs students to discuss why this research is important in helping prevent injuries. | Powerpoint Slide 5Student Activity Sheet 1 |
| 5 mins | Actual examples given of why research is important. (health, osteoarthritis, cost of treatment, non-productivity). Introduce specific ACL injury and cause (landings after a jump/deceleration) | Powerpoint Slides 6-10Student Information Sheet 1 |
| 5 mins | In pairs students to discuss how the problem might be investigated. | Powerpoint Slide 11 Student Activity Sheet 2 |
| 10 mins | How research into biomechanics is carried out. Reference to scientific process, data collection analysis, presentation, interpretation etc. | Powerpoint Slides 12-16 |
| 5 mins | Introduction to video techniques and screening tools used in biomechanics research. | Powerpoint Slide 17-19Student Information Sheets 2/3 |
| 15 mins | Students to plan own investigation (using video method) and propose simple screening method to assess the risk of injury.Carry out investigation (optional) or move to next activity (analyse researcher videos) | Powerpoint Slide 20Student activity sheets 3,4 |
| 5 mins | Presentation of actual research data (video clips of researcher explaining experiment. | Student Information Sheet 3 /Video clip “MW description of research” |
| 15 mins | Student analysis of data (video clips of athlete jumping). | Powerpoint Slide 21Videoclips (000 -011)Videoclips “MVI\_0026,28, 29, 78, 79, 80”) |
| 5 mins | Presentation of researcher analysis and interpretation of results | Powerpoint Slide 22Student Information Sheet 4 |
| 5 mins | Other areas of research – analysis of GPS data, from matches/training Optional student activities reviewing GPS data, collecting data using smart phones, smart sports watches, fitness monitors. | Powerpoint Slides 23-25Spreadsheet summary of GPS performance data |
| 5 mins | Boxing game – another example of wearable technology research  | Powerpoint Slide 26 |
| 10 mins | Plenary – routes into careers in research into sports performance. Researchers’ careers profiles. Other people involved in research eg. computer programmers etc | Powerpoint Slides 27-29Video clip “MW Career” |