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 5  Student 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 6-10  Student 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 17-19  Student 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 20  Student 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 21  Videoclips (000 -011)  Videoclips “MVI\_0026,28, 29, 78, 79, 80”) |
| 5 mins | Presentation of researcher analysis and interpretation of results | Powerpoint Slide 22  Student 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 23-25  Spreadsheet 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 27-29  Video clip “MW Career” |