

How to use the resource

As there are a variety of activities associated with the resource, this document is to ensure you are able to follow the flow of the activity and know how the activities and files fit in.

It is advised that you look through the files in the following order (this order has been replicated on the website <https://www.stem.org.uk/rxad3>) so you understand the flow and are able to present the resource in the manner it is intended.

Teacher Notes: This gives you information about the lead researcher and one of his students who helped with the creation of the resource. A history of Biometrics and GPS for sports is given to provide an everyday context. There are links to the curriculum given and a history of the focused injury as well as how best to prevent it. The document ends with extra reading and viewing that can be shared to extend the resource.

Techniques for analysis of sports and exercise (presentation): This is the power point presentation and the main resource. The teacher notes provide a lead into this and the file below discusses what activities relate to which slides.

Suggestions for lesson plan: Here is an outline of how this can be presented with timings and talking through which information/activity sheet lines up with each one. There is also a guide of which videos you will use with each activity.

Student Information Sheets: These will give students more information when you reach certain parts of the lesson. This is where you can find the evaluations of the video clips by the researcher broken down. This would prompt a lot of discussion due to students' interpretation compared to that of an expert.

Student Activity Sheets: These sheets are for guidance and can be adapted to suit school/students' needs. Please feel free to use these in the current format. These are referenced on the '**Suggestions for lesson plan**' document.

Videos: There are a few different files you can use here, all of which are referenced within the '**Suggestions for a lesson plan**' document. Depending on how in depth you wish to go with the activity will depend on how many of the clips you will show. This could be used as an extension task for students if you don't have time within one lesson.

GPS data series of rugby matches: This file would be great to use for graph skills with students. You could use it to find patterns in the data, identify anomalous results or what you feel would benefit students' needs the most. There is a glossary on the first tab identifying what each of the headings on the table mean. In the lesson this is an optional activity and could be used as a stand-alone if needed.

Careers:

Professor Iain Spears: career case study

Mark Wijnbergen PhD student in biometrics: career case study



Both of these documents are extended pieces from those in the Teacher Notes. These can be used in the plenary building on placing careers into the activity. Students could discuss paths into these careers.

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