

47. Angular Momentum in Sports



Title	Angular Momentum in Sports
Content/ Subject areas Target group: age range and size of the group	Physics, science, sports and Informatics 1. Age range: 17-18 years 2. Size of the group: 6 groups of 5-6 students 3. Level: medium
Learning objectives / competences	The objective is to understand the behavior of physical quantity "angular momentum", as well as the realization of a power point representation and the ability to expose clearly to an audience of students
Description of overall activity	This work is proposed with the aim of learning the central theme, ie physics of angular momentum, and at the same time: <ul style="list-style-type: none"> • stimulating group work and collaboration, • implementing electronic devices and familiarizing themselves with Microsoft Office packages, very useful for writing a document, as well as making a presentation that can be exchanged, compared and reused by future classes.
Description of the process and teaching/ learning strategies used	The students have to prepare a power point representation in which describe the main features of the physical quantity "angular momentum" then analyze the law of conservation of angular momentum . In particular, they must focus their attention on the action of this quantity in sports, as in martial arts, diving, skating..
Evaluation/ types of assessment	Considering implementation of a power point representation, ability to understand physical laws and creativity.
Materials and tools Timing and learning environment	The book, internet resource and a personal computer with a projector 10 days to prepare the presentation and 20 minutes to expose it.
Conclusion <i>(Innovation what makes it good practice, further application)</i>	The proposed work has aroused the interest of the students in the experimental world, stimulating creativity in the search for applications of greatness considered in the sport world. They also had to work together and interact with those classmates who usually do not have that kind of relationship. They also had to learn to use excel and power point programs, Microsoft Office packages, which for some students were totally unknown.
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