Deira International School

IB DP Sports Exercise and Health Science (IB1)



№ Summary

Topic 10 - Friction and Drag

Start date Duration Subject Year

Sports, exercise and health IB1 Week 1, November 4 weeks 8 hours

science

Course Part

Topic 10 - Friction and Drag

Description

Students will explore and understand the effects that friction and drag has on performance. They will study ways in which fiction can be increased and reduced to improve performance and how different types of shapes and clothing has an impact.



Inquiry & Purpose

(?) Inquiry / Higher Order Questions

Type **Inquiry Questions**

How do different types of clothing and shapes affect friction and drag during physical activity?

Curriculum



Appreciate scientific study and creativity within a global context through stimulating and challenging opportunities

Acquire a body of knowledge, methods and techniques that characterize science and technology

Apply and use a body of knowledge, methods and techniques that characterize science and technology

Develop an ability to analyse, evaluate and synthesize scientific information

Develop experimental and investigative scientific skills including the use of current technologies

Objectives

Demonstrate knowledge and understanding of

facts, concepts and terminology

methodologies and techniques

communicating scientific information

Apply

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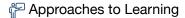
facts, concepts and terminology
methodologies and techniques
methods of communicating scientific information

Formulate, analyse and evaluate

hypotheses, research questions and predictions methodologies and techniques primary and secondary data scientific explanations



ATL Skills





Thinking

- In this unit, we will

ask students to formulate a reasoned argument to support their opinion or conclusion give students time to think through their answers before asking them for a response reward a new personal understanding, solution or approach to an issue ask open questions set students a task which required higher-order thinking skills (such as analysis or evaluation) ask questions that required the use of knowledge from a different subject from the one you are teaching



Communication

- In this unit, we will

ask students to explain their understanding of a text or idea to each other
construct a task around the use of different vocabulary and examples when speaking to different audiences
have students give an oral presentation without reading from their notes
ask students to monitor and check the quality of their writing
assess or give feedback on speaking or writing concisely
ask students to formulate arguments clearly and coherently
encourage all students to contribute to discussions

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Self-management

- In this unit, we will

set deadlines for students to meet

require students to revise and improve on work previously submitted

ask students to set their own learning goals

ask students to break down a larger task into specific steps

ask students to look for personal relevance in the subject matter

practise or discuss strategies to increase concentration

give students feedback on their approach to a task

model positive skills and behaviours such as being well organized and punctual

help students to learn from failures or mistakes

create an atmosphere where students do not think they have to get everything right first time



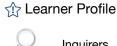
Research

- In this unit, we will

require students to practise effective online search skills (for example, use of Booleans and search limiters)



Developing IB Learners



Inquirers



Knowledgeable



Thinkers



Communicators



Risk-takers (Courageous)



Reflective