

Outline of the "Aeolus' chariot" LES

NOTE: This LES was designed within the framework of training sessions. It may require adaptation before being used with students.

PREPARATION



1 Catalyst

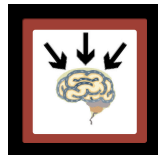
- Aeolus' force tamed for centuries
- Presentation of short video clips and of the challenge
- Nomenclature of Aeolus' chariot



2 Activating previous knowledge

- Building a network of concepts

REALISATION AND INTEGRATION



3 Learning activities

- Directed laboratory: uniformly accelerated mobile
- Kinetic and dynamic study of the uniformly accelerated mobile
- Basic notions about sailing (winds, Bernoulli, dynamic study of Aeolus' chariot)



4 Establishing a plan

- The student outlines the problem and establishes his plan of attack.



5 Complex task

- Kinetic analysis of Aeolus' chariot
- Graphical analysis of the video clips
- Production of explanations obtained by scientific argumentation



6 Synthesis activity

- Two networks of concepts
- A kinetic and dynamic description of an everyday situation