



## The scenario

Length   2:42   To analyse the properties of frictional forces, what they depend on and what they do not depend on	Subject	Mechanics / Frictional Forces	
and what they do not depend on  Detailed objectives  Structure and description of experiments:  1. Introduction    Description: The motivation for the experiment will be the investigation of acting forces and frictional forces.  Description: Understand that the frictional force depends only on the magnitude of the compressive force perpendicular to the pad, it does not depend on the size of the surface.  Part 1  Tools: Scales, force meter, block, weights  Description: The body - the block can be placed on the floor so that it touches the surface S, 2S, ½ S.  Body with base ½ S we place it on the mat, load it with a weight and pull on the mat with a force meter in a uniform movement. We subtract the magnitude of the applied force.  We place the body with the base 2 S on the mat, load it with a weight and pull on the mat with a force meter in a uniform movement. We subtract the magnitude of the applied force.  We place the body with the base 5 on the mat, load it with a weight and pull on the mat with a force meter in a uniform movement. We subtract the magnitude of the applied force.  We place the body with the base 5 on the mat, load it with a weight and pull on the mat with a force meter in a uniform movement. We subtract the magnitude of the applied force.	Length	2:42	
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<b>Experiment 3 (2:04),</b> and pull on the mat with a force meter in a uniform movement. We	Experiment 2 (1:48),	and pull on the mat with a force meter in a uniform movement. We	
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(2:23). We will then compare the magnitudes of the acting forces in all three cases. The force meter in the given three cases shows roughly the same amount of applied force.	(2:23).	cases. The force meter in the given three cases shows roughly the	
<b>Questions:</b> The size of the friction force depends on the size of the friction surface ? $(2x, \frac{1}{2}x)$ ?			
Conclusions: The size of the friction force does not depend on the friction surface, but only on the size of the pressure force perpendicular to the pad .		friction surface, but only on the size of the pressure force perpendicular to the pad .	
<b>3. Summary, evaluation and</b> notes  The system needs to be set in motion, for the system to start, a greater force must be overcome than when the system moves in a uniform motion.		force must be overcome than when the system moves in a uniform	
Level: primary school (ISCED 2 / 8th grade)			







