

Welcome to physicsbook.gr!

This website is created to offer information about science for free and it is created for children. Therefore it is a great possibility to use physicsbook.gr in your lessons. Here are some models, how to integrate physicsbook.gr in your lessons.

### -Classical experiment

1. Choose one experiment.
2. Prepare the experiment, by collecting all the needed materials and try if the experiment works.
3. Present to your class or group, what you are going to do, without doing the experiment.
4. Ask your pupils for some thesis about the effect and the result of the experiment.
5. Collect the thesis (for example at the board) even if they are very different.
6. Present the experiment or let the students do the experiment. Make sure that everybody sees the effect.
7. Ask for the effect and compare it to the thesis.
8. Present the explanation and also compare the explanation to the thesis at the board.
9. Give a additional task to make the pupils be more familiar with the learned content.

### -Workshop

1. Choose some experiments, which fit to your current topic.
2. Prepare the experiments, by collecting every presented material and print the instructions.
3. Divide your class into groups of 2-6 people (it depends on how many students you have at all). One group for one experiment could be a possibility.
4. Every group should do every experiment and take notes where they should write down their observations. After finishing one experiment, they change with pupils, who also finished their experiment.
5. When every group has finished every experiment they can discuss in their group or with the whole class about the explanation.
6. After having some notes about possible explanations, your pupils should have a look at the explanation on physicsbook.gr printed or online
7. If necessary, control their learning-success with short tests, articles or questions.

Achieved aim: Pupils learn by doing some practical work and collect their observations. The teacher works as an assistant and moderator of the pupils "autonomous" learning. The pupils learn how to deal with experiments and how to solve tasks together in a group.

### -Ball Bearing

1. Choose some experiments, which fit to your current topic.
2. Prepare the experiments by collecting every needed material, print the instructions and the explanations.
3. Divide your class in groups. The number of groups depends on the number of experiments. Therefore you have to prepare one experiment more than once, in order to reduce the number of pupils per group.
4. Every group does one experiment, takes notes about their observations and reads the explanation of their experiment. -> Now every group is an expert-group of their experiment.
5. Divide the class again in groups. Be sure that in every group is at least one "expert" of each experiment.
6. Every expert presents his experiment and explains the effect(s) to his or her member of the group.
7. Give every group some exercises, which contain questions about the experiments before.

Achieved aim: Pupils learn by practical work and observations. The teacher is assistant and moderator of the pupils autonomous learning process. The pupils learn how to deal with experiments, how to present and explain the learned content to other pupils and they learn how to solve problems in groups.

We hope that we gave some new inspirations for your next lesson(s). Enjoy the time on [physicsbook.gr](http://physicsbook.gr) and thank you very much for visiting our website!