Foreword

A key role of teachers is to engage their students. This is very important if the teaching of physics is to be effective. We may have to win back students' interest where enthusiasm has been damaged in earlier years or even kindle an interest for the first time, but it is never too late. Too many students can be dismissive of a subject they mistakenly regard as boring or just too hard. How encouraging it is when a student remarks "when I joined your class Physics didn't interest me at all, but now......." Or maybe in later years, "I would never have gone on to study physics or engineering without your enthusiasm for the subject!"

Yes, we have syllabuses to complete, but often what is remembered by students are those diversions off syllabus that take only a few minutes, yet engage, interest and challenge. We all should all have a bank of short demonstrations, experiments, challenges that can be used in class that will do that.



Showdefysica 3 is a collection of tried and tested demonstrations for teachers by teachers and is a fantastic resource for those wishing to add something extra to their lessons and out of class activities. Having detailed practical information from other teachers is always useful, especially as these demonstrations have been trialled and outcomes confirmed by more than one teacher and class before finding their way into the book. The book will give teachers concrete ideas for how to use the demonstrations both in the lessons and beyond, as well as physics background, follow up material and ideas for discussion. It is the sort of book to have on the shelf, to check when a topic is being prepared or revised as it will provide all anyone needs to add some extra to a lesson or just something challenging for fun. As well as the demonstrations themselves, there is useful information and references that will add to anyone's presentation of the topics. The book gives very concrete teaching tips, context ideas and even possible questions to ask to stimulate further understanding.

This is the kind of book I wish had had on the shelf as a young teacher, but also as someone in more mature years wanting to rejuvenate and enliven my well worn ideas.

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