

What to expect: Basics

What do we do when we embark in learning or doing something we have not done before? We try to get some hold on basics. In the simplest case we want to learn about specific terms and the language of the subject we want to enter into.

This is exactly what the first two weeks of “Color, Light, and Sound” wants to accomplish:

Making you familiar how we measure quantities in physics, and what units we use to quantify our measurements. Understanding what fundamental quantities are and what the derived ones are.

We also need to realize that one of the languages in Physics is Mathematics. This means that once connections between quantities are found and established, a Physicist tries to formulate them in equations. However, it is important to remember, that equations can always be formulated in words and sentences. That actually makes them easier to remember, and also to remember the phenomenon the equation describes. Please don't be tempted to just memorize equations. Though this may look as the easy road, it will not be really useful to your understanding of the physics (or real world) phenomenon.

The second part of the basic introduction takes you on a fast track through mechanics, energy, pressure, and temperature. You are not expected and should not think that you need to go into more depth than given in the online material. To do that, would mean taking a different course.

The idea of the entire fast track though basic physics is to introduce you to some language and physics ideas, which you will later on encounter again when reading about light and sound in detail. At this moment you only need minimal knowledge of this basic ideas so that when you encounter it again later, you can refer back to those basic ideas. Thus, don't worry if you think that is real fast. You only should get a taste, but should not go into depth at this very moment. Going into depth will come later.