

### What is light?

Scientists all over the world try to answer this question. Up to now there are two models to explain all the effects concerning light.



#### 1. Light consists of particles

One thesis deals with light as particles. A lot of experiments lead to the conclusion to deal with light as particles, the so called photons. You can image that for example the sun sends permanently photons to the earth that we recognize as sunlight. The photons on the other hand are "energy-packages". With this model of having "energy-packages" it is possible to explain a lot of effects, but not all effects that deal with light. Sometimes light behaves like waves.

#### 2. Light as a wave

Talking about light as a wave it is necessary to understand, what waves in physics are. If you do not know, please read the wiki-article: waves.

In order to explain some experiments and effects you have to imply that light is a wave. Light behaves sometimes ,for example, like sound-waves. Two light sources interfere with each

other, when their light beams cross each other. As you know from the wave-article, waves just transport energy not material. Therefore the models: "light as particles" and "light as a wave" are different.

These are the current models of light. The explanation is not complete, because the topic: "What is light?" is very difficult and complex. Our aim in this case is to give a short overview about this discussion and avoid to give the often given answer: "The scientist do not know exactly what light is!".