The teaching of sciences such as physics and chemistry is in critical situation all over the world. Students think that the subjects are too difficult and boring. In reality, the textbooks are often very theoretical and their topics are far from the everyday life. Due to the rapidly increasing amount of scientific results and their modern technical applications textbooks are not up-to-date. Therefore it is crucial to find interesting tasks which are connected with real life in order to gain back the students’ interest. In our opinion, atmospheric physics gives a lot of possibility to apply physical laws in real and exiting situations. In the present paper some questions of atmospheric physics are discussed in a relatively easy and understandable way which can even be understood by a secondary school student. Two topics, which can be illustrated with beautiful and amazing pictures, were chosen. One of them is the description of the birth and the development of thunderstorms. The other one is the phenomenon of halos. A lot of materials (beautiful photos and animations), connected to both topics, can be found on the internet, and it is quite easy for anyone to take his or her own photos. Because of this both topics are suitable to treat by the project method. In case of the second topic the results of a project made by Hungarian students are also shown.