

# Theory of knowledge 2013

Science



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“ Only seeing general patterns can give us knowledge. Only seeing particular examples can give us understanding. ” To what extent do you agree with these assertions? To answer this quote I will use reason, sense perception and language and three areas of knowledge related to them: science and math for reason and history for language. First it is necessary to analyze the quote; “ Only seeing general patterns can give us knowledge” means that we reach knowledge only by recognizing a general trend; “ Only seeing particular examples can give us understanding” means that we do not really learn from details, but only get a basic understanding. As concerns reason I would like to consider science and math, because they best explain how we achieve knowledge through the recognition of general patterns. The first aspect that demonstrated how science uses general patterns to gain knowledge is the fact that science utilizes inductive reasoning, which means that you begin by observing and classifying data and then you look for a pattern that can explain the theory. An example will be the gravitational law: Newton gathered data and formulated a hypothesis (understanding from little details) and then found the gravitational law (knowledge from general patterns). Another example that shows how the knowledge derived from science is connected to general patterns is the discovery of the heliocentric planetary system. Initially Copernicus and the other scientists who worked on this topic had to gather information from astronomical observations, but this data only represented an understanding. The real knowledge came from the formulation of the law of planetary motion, which is the general pattern in this case, and that fully explains the way the solar system works.