

Nature of Science Interactive Activity
Sort statements into true/false in small groups
Based on EBAPS version 6.1, 02-01-2006

Instructions: Cut apart the statements below, giving each group of about 5-10 statements.

Invite them to sort these into true and false categories.

Then ask groups to report out their results, inviting others to comment upon their thoughts.

Obviously, computer simulations can predict the behavior of physical objects like comets. But simulations can also help scientists estimate things involving the behavior of *people*, such as how many people will buy new television sets next year.

When it comes to controversial topics such as which foods cause cancer, there is absolutely no way for scientists to evaluate which scientific studies are the best. Everything's up in the air!

Some scientists think the dinosaurs died out because of volcanic eruptions, and others think they died out because an asteroid hit the Earth. Scientists don't agree because there's often more than one way to interpret the facts.

Science is a little like fashion; something that's "in" one year can be "out" the next and back "in" again quickly. Scientists regularly change their theories back and forth.

Scientists should spend almost all their time gathering information. Worrying about theories can't really help us understand anything.

Someone who doesn't have high natural ability can still learn the material well even in a hard science class.

Often, a scientific principle or theory just doesn't make sense. In those cases, you have to accept it and move on, because not everything in science is supposed to make sense.

Understanding science is really important for people who design rockets, but not important for politicians.

When solving problems, the key thing is knowing the methods for addressing each particular type of question. Understanding the "big ideas" might be helpful for specially-written problems, but not for most regular problems.

Given enough time, almost everybody could learn to think more scientifically, if they really wanted to.

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Scientists are having trouble predicting and explaining the behavior of thunderstorms, because some things just don't behave according to a consistent set of rules.

To be successful at science, natural ability is much more important than hard work.

Science applies to almost all real-world experiences. If we can't figure out how, it's because the stuff is very complicated, or because we don't know enough science yet.

In stuff like personal relationships or poetry, things can be ambiguous. But in science, the facts speak for themselves; science is never ambiguous.

Once experiments have been done and a theory has been made to explain those experiments, the matter is pretty much settled. There's little room for argument.