Cut apart statements, giving each group of teachers 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.

A student just read something in her science textbook that seems to disagree with her own experiences. But to learn science well, students shouldn’t think about their own experiences; they should just focus on what the book says.

Most students can understand spatial processes like seasons or lunar phases if they hear repeated explanations and watches videos that clearly explain the process.

A teacher once said, “I don’t really understand something until I teach it.” But actually, teaching doesn’t help most teachers understand the material better; it just reminds them of how much they already know.

When learning science, people can understand the material better if they relate it to their own ideas.

If science teachers gave really clear lectures, with plenty of real-life examples, then most good students could learn those subjects without doing lots of activities and practice problems on their own.

In order to address misconceptions, students need to have their knowledge built through repeated exposure to the content with a variety of activities.

Asking a student to put science content in her own words, so that the content makes sense to her, is more useful than learning the content the way it is presented in the textbook.

Having students watch the teacher model why we have lunar phases is just as useful as having the students model it for themselves.