



NGSS Standard: 4-PS3-3 Ask questions and predict outcomes about the changes in energy that occur when objects collide.

[Check With the Experts](#) (they will read this AFTER the discussion)

Potential Question: What happened to the energy in the cars?

Competing Ideas: The energy in the cars was destroyed when they collided VS. The energy was changed when they collided.

- ★ Begin the lesson by asking students to review what they did in the investigation.
 - If you recorded the lesson you could have them watch the video again.
- ★ Pose the question and competing ideas above and have the students physically move next to the other students who support the idea.

Potential Questions to guide the discussion

Begin the discussion by asking students the question: What happened to the energy in the cars? Was it destroyed or was it changed during the collision? Explain your evidence.

Let the students discuss their ideas, however, if the conversation starts to slow down you can ask the following questions to keep the discussion going.

- Where did you see or hear energy when the cars collided?
- Do you think those things you saw or heard was the energy being destroyed or changing?
- What happened to the energy of the faster moving car when it hit the slower moving car?
- If the energy was destroyed where did it go?
- If the energy was changed where did it go?

Student learning Goal by the end of the Argumentation (after Check With the Experts):

We can observe energy when it moves from place to place by sound, light, heat, and electricity. Energy can be converted from one form to another.