



CRS

COMMUNITY RESOURCES FOR SCIENCE
practical support for great science teaching

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Strengthening Science Speaking and Listening Skills

The key science-related opportunities for developing speaking and listening skills include:

- small group work and discussions during investigations
- large group discussions of results and possible conclusions
- occasional individual presentations of research or science investigation posters

Several tactics can improve student performance in these tasks.

- Review guidelines for small group discussion (respectful, equitable, “I” statements) and use teaching structures like timed sharing as necessary to develop respectful, equal discussion habits.
- Use structures to develop large collaborative discussion skills, including basic discussion rules, practicing listening postures, participation techniques as described above, and sentence frame support for
 - sharing observations (I noticed that ____)
 - presenting conclusions (I think that ____ because during the experiment I noticed ____)
 - commenting on previous statements (I agree/disagree with the idea that ____ because ____) (Another way to look at that observation might be ____)
- Review discussion support and structure to address performance expectations in CCELA Speaking and Listening Standards. Applicable performance guidelines for students and possible prompts include:

Applicable CCELA Performance Guidelines	Possible Instruction Prompts
<u>Follow agreed-upon rules for discussion</u>	What are our rules for discussion?
<u>Are able to state their own observations and ideas</u>	What did you notice? What do you think might be happening? What evidence from your observations supports that idea?
<u>Answer questions with observations and reasoning related to the discussion</u>	<u>If off topic:</u> Can you think of another observation or interpretation to add to our list? Or Which of these observations did you see? <u>If encyclopedic answer:</u> Can you choose one important thing that supports or contradicts our observations/reasoning?)
<u>Summarize the points that the last speaker (or teacher) made</u>	Raise your hand if you can tell me what ____ just said. [Ask routinely and select speakers at random]
<u>Make a comment that elaborates on the remarks of others</u>	Can anyone explain more about what ____ just said? Who has something to add to that ...
<u>Identify the evidence that the speaker provided to support their idea</u>	What evidence did ____ provide to support this idea? Can you think of any other evidence that supports or contradicts this idea? Can you think of any other ways to look at that evidence?)
<u>Draw conclusions in the light of information gained from discussion</u>	Who can sum up the shared results of our experiment? Thumbs up if you agree. Other ideas?

- **Include at least one oral presentation** on either investigation results or a research topic, with visual display that supports communication, logical arrangement of ideas and supporting facts, use of appropriate vocabulary, and clear statements of main idea.