

TABLE 1

### An activity structure for supporting language development.

| Step   | Example with the stomp rocket   | Opportunities and Support for Language Development   |
|--|---|--|
| Frame the learning                             | The teacher poses the unit-level driving question “How do toys move?” Students share some ways they have seen their toys moving. The teacher probes “What makes it go?”   | Students have an opportunity to ground their learning in their own lived experiences. Students share the language that is meaningful to them to describe motion, using words like suck, push, zoom, and fly. They use their hands and sounds like “psshoooo!” to describe motion.  |
| Experience a phenomenon and share observations | The teacher shows the stomp rocket to the students and presents the lesson-level question “Why did the rocket go up and then come down?” The teacher guides students to describe the path and speed of the rocket at different points in its trajectory.  | Students share observations like “It doesn’t go up and down, but more like a rainbow” and “It was almost totally stopped at the top for one second.” Thus, new language is introduced in the class within a context of shared observation.   |
| Draw an initial model                          | Students individually draw an initial model. The teacher suggests that they show what causes the motion to change over time.  | Students draw from their existing language resources to share their ideas. They may choose to use pictures, symbols, and/or words.   |
| Discuss your model with a peer                 | Students explain their model in an A-B partner structure. Student A “tells the story” of their model while Student B listens. Student B asks clarification questions to help Student A extend their thinking. The students switch roles and repeat. Students are asked to “borrow” ideas and language from their partners. Students then repeat the process with a new partner. | Students are supported by using multiple modalities, including pictures, words, and gestures to communicate their preliminary ideas. Peer questions act as a scaffold for the presenter to develop a clearer and more complete explanation. Students expand their language by adopting ideas and communicative resources from their peers. |
| Revise your model                              | Students use the ideas that they heard and other feedback to clarify and expand their models.   | Students incorporate feedback to strengthen their model, which is an opportunity to use new language resources that were developed through interactions.   |