Format of the Exemplar Activity Guides

Each exemplar guide is designed to be an introduction to a science topic for young children. Each guide contains a materials list, easy to follow steps for setting up and facilitating the activity, suggested questions to ask the children, helpful teaching tips, and a background information section to support the teacher's own science content knowledge. The exemplars are written in a step-by-step format to help teachers feel comfortable guiding the children's explorations. However, the guides are meant to be flexible, like a basic recipe, that each teacher can modify depending on the interests, ages, and developmental level of the students. The guides are geared for children 3-6 years old. For some groups, the teacher may need to simplify the content and introduce fewer concepts, facts, and new words. Other groups may be able to handle more discussion and conduct more involved investigations. Ideas for further explorations are likely to emerge from the children's experiences and questions during the exemplar activities. In this way, teachers can use the exemplars to lead into deeper and more ongoing investigations of a topic, rather than as "one and done" activities.

Each activity follows a consistent sequence, using the learning cycle process of Engage-Explore-Reflect. The chart below shows the intended purpose of each stage in the process.

Learning Cycle Stage	Teacher	Learner
Engage	• Introduces objects, events or questions to engage students; • Accesses learner's prior knowledge and related past experiences; • Responds to learner's interest.	• Perceives and recognizes something of interest in the environment; • Demonstrates curiosity. *The more a learner is interested in a topic, the more they are motivated to be engaged and learn about it.*
Explore	• Creates the environment; • Supports and enhances learner's interest and curiosity; • Encourages use of science process skills; • Helps guide learner through thoughtful questioning to make their own discoveries; • Observes and assesses learner; • Respects learner's ideas and encourages dialogue; • Links new information to learner's prior knowledge and previous experiences; • Models use of new vocabulary; • Takes note of what learner is most interested in, and expands upon that interest in further discussion and new explorations.	• Actively explores objects and phenomena; • Connects to prior knowledge and experiences; • Collects further information using science and mathematics process skills; • Raises questions, clarifies questions, shares ideas; • Builds concept development and personal understanding.
Reflect	• Facilitates "science talks" to help learner refine ideas, communicate, construct explanations and draw conclusions; • Models and supports using scientific language; • Asks more focused questions; • Helps learner make connections; • Helps learner plan further investigations.	• Talks about what s/he did during exploration • Compares own thinking with that of others; • Expresses observations, ideas, and understandings in a variety of ways, such as talking, drawing, journals, creative play; • Practices using science language; • Applies learning to new situations.

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