

Formulating Productive Questions

Program/activity title or theme:																
Related Crosscutting Concepts:																
Question Type & Characteristics	Language Suggestions	Draft Questions to Support Specific NGSS Practices														
<p style="text-align: center;">CLOSED/NARROW</p> <ul style="list-style-type: none"> • Seek what students know • Encourage memorization, fact finding, and following directions • Focus students on the class content • Demonstrate knowledge of ideas • Support Bloom’s Lower Order Thinking Skills 	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 5px;">define</td> <td style="width: 50%; padding: 5px;">explain</td> </tr> <tr> <td style="padding: 5px;">label</td> <td style="padding: 5px;">locate</td> </tr> <tr> <td style="padding: 5px;">restate</td> <td style="padding: 5px;">describe</td> </tr> <tr> <td style="padding: 5px;">identify</td> <td style="padding: 5px;">rewrite</td> </tr> <tr> <td style="padding: 5px;">match</td> <td style="padding: 5px;">list</td> </tr> <tr> <td style="padding: 5px;">summarize</td> <td style="padding: 5px;">recall</td> </tr> <tr> <td style="padding: 5px;">put in order</td> <td style="padding: 5px;">name</td> </tr> </table>	define	explain	label	locate	restate	describe	identify	rewrite	match	list	summarize	recall	put in order	name	<div style="background-color: #4f81bd; color: white; padding: 5px; text-align: center;">Practice of Science & Engineering:</div> <p style="padding: 5px;">Question(s):</p>
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match	list															
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put in order	name															
<p style="text-align: center;">OPEN/BROAD</p> <ul style="list-style-type: none"> • Seek what students think • Require students to use and apply information • Encourage speculation and more questions • Encourage development of ideas • Support Bloom’s Higher Order Thinking Skills 	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 5px;">apply</td> <td style="width: 50%; padding: 5px;">create</td> </tr> <tr> <td style="padding: 5px;">differentiate</td> <td style="padding: 5px;">defend</td> </tr> <tr> <td style="padding: 5px;">compare</td> <td style="padding: 5px;">predict</td> </tr> <tr> <td style="padding: 5px;">construct</td> <td style="padding: 5px;">examine</td> </tr> <tr> <td style="padding: 5px;">determine</td> <td style="padding: 5px;">support</td> </tr> <tr> <td style="padding: 5px;">contrast</td> <td style="padding: 5px;">debate</td> </tr> <tr> <td style="padding: 5px;">demonstrate</td> <td style="padding: 5px;">evaluate</td> </tr> </table>	apply	create	differentiate	defend	compare	predict	construct	examine	determine	support	contrast	debate	demonstrate	evaluate	<div style="background-color: #4f81bd; color: white; padding: 5px; text-align: center;">Practice of Science & Engineering:</div> <p style="padding: 5px;">Question(s):</p>
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