

Science and Engineering Practices Progression for Students and Families: K-2

Each of the practices is described through questions for teachers, families and students. “Can I” questions can be posed during a lesson as a tool to help students learn how to engage in the practices. “Did I” questions can be used to help students reflect on their use of the practices after a lesson or unit.

K-2	PRACTICE 1: Asking Questions and Defining Problems	PRACTICE 2: Developing and Using Models	PRACTICE 3: Planning and Carrying Out Investigations	PRACTICE 4: Analyzing and Interpreting Data
Science and Engineering Practices CAN I? DID I?	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Ask a question about what I noticed to get more information? b) Ask a question that I could answer by doing a science investigation? c) Describe something that was not working right or a problem that could be solved? d) Make a new or improved object or tool to solve a problem? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Tell the differences between the model and real life? b) Explain the differences between two models? c) Create something that models what I observed or learned? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Work with others to plan and do a science investigation? b) Make predictions based on what I already know? c) Talk about different ways to observe and/or measure to gather data? d) Collect and compare data? e) Make observations to decide if a tool or solution will solve the problem? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Draw or write what I thought or observed? b) Find patterns or connections in what I observed? c) Use a patterns or connections to answer a question or solve a problem? d) Compare what I thought would happen to what I observed? e) Use information to decide if something works the way it is supposed to?
K-2	PRACTICE 5: Using Mathematical and Computational Thinking	PRACTICE 6: Constructing Explanations and Designing Solutions	PRACTICE 7: Engaging in Argument from Evidence	PRACTICE 8: Obtaining, Evaluating, and Communicating Information
Science and Engineering Practices CAN I? DID I?	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Decide when to use numbers and when to use words to make observations? b) Use counting and numbers to describe a pattern? c) Describe, measure and/or compare properties of objects? d) Make a graph of the data? e) Use number data to compare two solutions? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Use my five senses to gather information about an object or something that happened? b) Choose the evidence is best to support my claim? c) Think of a way to build something to fix a problem? d) Come up with other ways to fix a problem? e) Compare different ways to fix a problem? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Make a claim and support it with evidence? b) Tell the difference between opinions and evidence? c) Listen carefully to an argument and agree or disagree using the evidence? d) Retell the important parts of an argument? e) Make a claim about how well something works and support it with evidence? 	<p>Can I... ? Did I...?</p> <ul style="list-style-type: none"> a) Find patterns by listening to or reading books about science or engineering? b) Describe how a picture connects to what I am learning in science or engineering? c) Gather information by reading or looking at pictures to answer questions? d) Tell if the science we read or watch is real or make believe? e) Share science and engineering ideas by talking, writing, drawing, or building something?