

Asking Questions Activity #3: Rope Tube

General Objective: To provide an opportunity for learners to ask questions in science by observing a phenomenon and experiencing that phenomenon.

The facilitator does the following:

1. Using the rope tube, demonstrate that the ropes are all connected to each other ([Rope Tube Lesson Podcast](#) – requires [Adobe Flash](#)).
2. After students have observed the operation of the rope tube, solicit questions from students.
3. You can help students differentiate between researchable questions and testable questions. Researchable questions are those that can be looked up in a resource such as a dictionary or a on a web search. Testable questions are those can that be tested to determine the answer.
4. Have students write questions in their notebooks.
5. Lead a discussion of the questions that have been written. Encourage students to ask deeper questions.

The purpose of this activity is ONLY to generate questions.

The rope tube is also used with the Science & Engineering Practices of [Developing & Using Models](#), [Constructing Explanations & Designing Solutions](#) and [Engaging in Argument from Evidence](#).

The rope tube is another example of a discrepant event. Refer to the discrepant event resources from [Asking Questions Activity #1: Balloons & Skewers](#).

[Links to possible solutions to the Rope Tube](#). In addition to the solution shown here, the ropes can also be connected with a washer, paper clip or knots.

Related Crosscutting Concepts:

- [Patterns](#)
- [Cause & Effect](#)
- [Systems & System Models](#)
- [Structure & Function](#)

Related Disciplinary Core Ideas:

- [Core Idea PS1: Matter and Its Interactions](#)
 - [PS1.A: Structure and Properties of Matter](#)
- [Core Idea PS2: Motion and Stability: Forces and Interactions](#)
 - [PS2.A: Forces and Motion](#)
 - [PS2.B: Types of Interactions](#)
- [Core Idea ETS1: Engineering Design](#)
 - [ETS1.A: Defining and Delimiting an Engineering Problem](#)
 - [ETS1.B: Developing Possible Solutions](#)
 - [ETS1.C: Optimizing the Design Solution](#)