**Storytime- The Cloud Spinner**

Overview of Workshop

This workshop consists of two parts: a reading of the "The Cloud Spinner" by Michael Catchpool followed by a hands-on activity. Have you ever wondered how water goes from the ocean to the clouds and back again? Water needs to heat up and cool down and change states. In this activity, students will explore the properties of water through an experiment about emulating the water cycle in a jar.

**We recommend thoroughly going through all documents including resources for the most successful outreach.**

Grade Level / Appropriate Age: Grades 2-6

STEM topics: Physics

**WORKSHOP OBJECTIVES:**

* To learn about states of matter.
* To learn about the water cycle in nature.

**PHYSICAL REQUIREMENTS:**

* You will need a space that will allow you to comfortably lead the virtual quiz, a stable internet connection, a desktop computer with 1-2 desktop screens, based on your preference, a webcam and a headset with microphone.
* Site coordinators and volunteers participating in online programming must ensure the following if video is recorded or shown: wearing a Let’s Talk Science t-shirt, having a neutral background and trying to avoid open backgrounds where other people may suddenly be visible.
* This activity works best with a partner who can monitor the chat for questions.

**LESSON OVERVIEW**

\*\* Based on your specific outreach audience and event duration, you may choose to include more states of matter or water cycle related activities available in the Online Activities Database on the Let’s Talk Science portal. Make a plan that best fits your group.

Adult supervision recommended.

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|  | **Approx. Time** | **Overall Time** | **Description** |
| Intro  | 10 minutes | 0-10 minutes | Welcome, donors recognition, land acknowledgement, who’s in the room, Zoom overview, rules |
| Storytime introduction | 5 minutes | 10-15 minutes | Topic, book presentation, brief activity description |
| Book reading | 15 minutes | 15-30 minutes | Reading of "The Cloud Spinner" by Michael Catchpool |
| Cloud in a jar | 25 minutes | 30-55 minutes | Students will explore in this activity the water cycle and the various states that water cycles through. |
| End | 5 minutes | 55-60 minutes | Thank you to everyone involved and who attended, other projects/resources at Let’s Talk Science, donors recognition, survey reminder, questions from participants |

**POWERPOINT REVIEW**

The PowerPoint will complement the kit and will help with the timing and flow of the event. Be sure to go through the PowerPoint thoroughly prior to your event. All scripts, speaking notes, and follow along hand signals are located within the notes of the PowerPoint. To create a script make sure you refer to the manual for instructions on how to do so, you can also refer to the manual for how to share your PowerPoint screen.

Pre-Event Preparation

Before attending the Let’s Talk Science online event, you will want to make sure you have the following items to follow along.

**MATERIALS**

|  |  |
| --- | --- |
| **Part** | **Materials**  |
| Hands-on activity | Ice cubes |
| Jar |
| Hairspray (disinfectant spray or other aerosol sprays can be a substitute) |
| Hot water |
| Optional: food colouring |

**STEP BY STEP PROCEDURE**

1. Reading "The Cloud Spinner" by Michael Catchpool
2. Discussing the elements of the water cycle and addressing precipitation, evaporation, condensation.
3. Doing the Activity
* Pour into the jar approx. 3 cm of steaming water. Cover the jar with plastic wrap. Place ice cubes on top of plastic wrap.
* After 1-2 minutes, remove the lid, quickly spray a bit of hairspray into the jar, and then quickly place back on top of the jar the lid with the ice on it. Watch the cloud form.
* Students observe and record their observations for several minutes and put up their results in the Q&A section.
* Summarize by having students connect what happened in the jar and the water cycle.
* **Modification**: Make a jar with wrap on it and ice on the wrap but without water. Water from the air condenses – where did the water come from? Have students guess. Answer: water from inside the jar (air in the jar has some water) condensed on the plastic wrap.

**OTHER IMPORTANT DETAILS**

* Participants’ microphones and webcams are turned off by default. Nobody will be able to hear or see you.
* For privacy reasons, the participants’ last name will be edited so just the initial is showing.
* If you have any questions during the activity, you can use the Q&A section to communicate with the volunteer and they will answer it there.