

READING IN THE RAIN (AND UNDER THE CLOUDS)

A STORYTIME ABOUT WEATHER

LESSON PLAN



Wisconsin Water Library
UNIVERSITY OF WISCONSIN-MADISON

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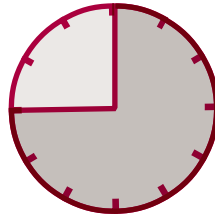
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Using songs, a poem, read-aloud stories, and science and craft activities, this lesson is designed to pique children’s curiosity and hone their observations about rain, clouds and weather.

This lesson plan works well with children in preschool through second grade. The lesson lasts between 45 minutes to an hour, based on the number of books read. To orient the children to what it means to be a scientist, think scientifically and “do science,” use the [“A Scientist Is…”](#) and [“Scientific Method”](#) handouts available at the end of this lesson plan.



SING

Begin with your favorite welcome song.

SCIENCE CHAT

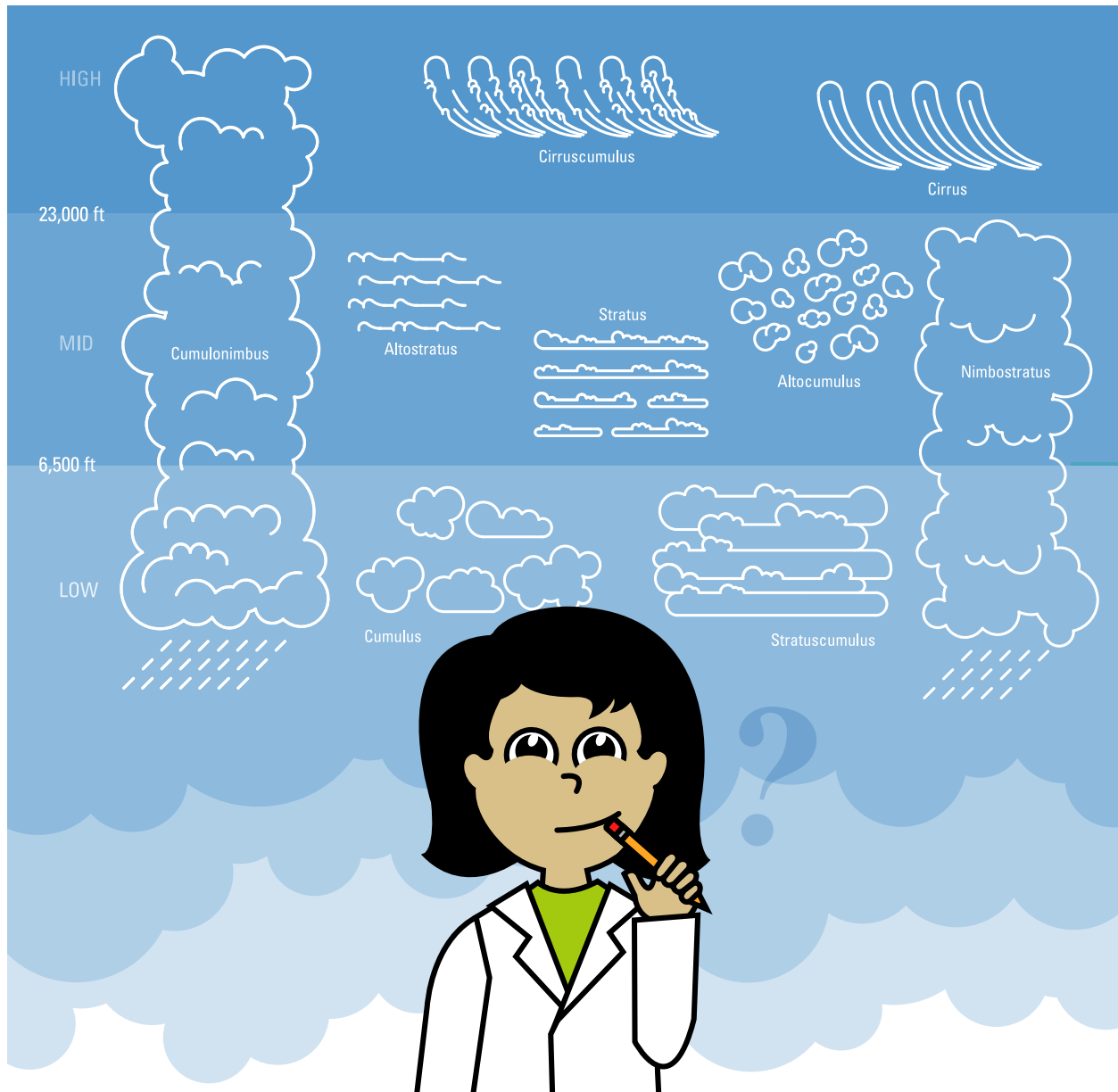
Begin a discussion of rain and clouds, starting with a free-form science Q&A like the following.

Question	Answer
Where does rain come from?	Clouds!
Why does rain come from a cloud?	When water vapor in the air rises, it cools and condenses around tiny particles of dust that are in the air, forming tiny droplets of water. A cloud is actually made up of billions of these tiny water droplets. When these droplets bump into each other, they grow bigger and heavier until they're heavy enough to fall to the earth as raindrops (or snow, etc.). Sometimes gently (as drizzle) or not-so-gently (as a downpour).
Who/What is rain good for?	Rain is a vital part of the water cycle. It clears the air, replenishes aquifers, allows plants to grow, fills bodies of water and adds humidity to the air. All animals (including humans) need water in order to survive.
Can rain be bad?	Sometimes there is more rain than the ground can hold, and this can cause floods.



SCIENCE CHAT (continued)

Talk about what it means to observe and then observe characteristics of the children (i.e., brown hair, blue eyes, etc.). If there are clouds in the sky, step outside or go to the window and ask the children to observe and describe cloud formations.



Clouds are divided into four basic forms (**Cirro**-form, **Strato**-form, **Cumulo**-form and **Nimbo**-form) at three basic levels (low, middle and high) in the atmosphere. The combinations of shapes and altitudes create quite a few different cloud types. This may be more complexity than kids this age are interested in, so we chose to focus on the three cloud forms that are related to shape — cirrus, stratus and cumulus. If your group wants to identify clouds further or has questions, see the [“to learn more”](#) section at the end.



Cirrus



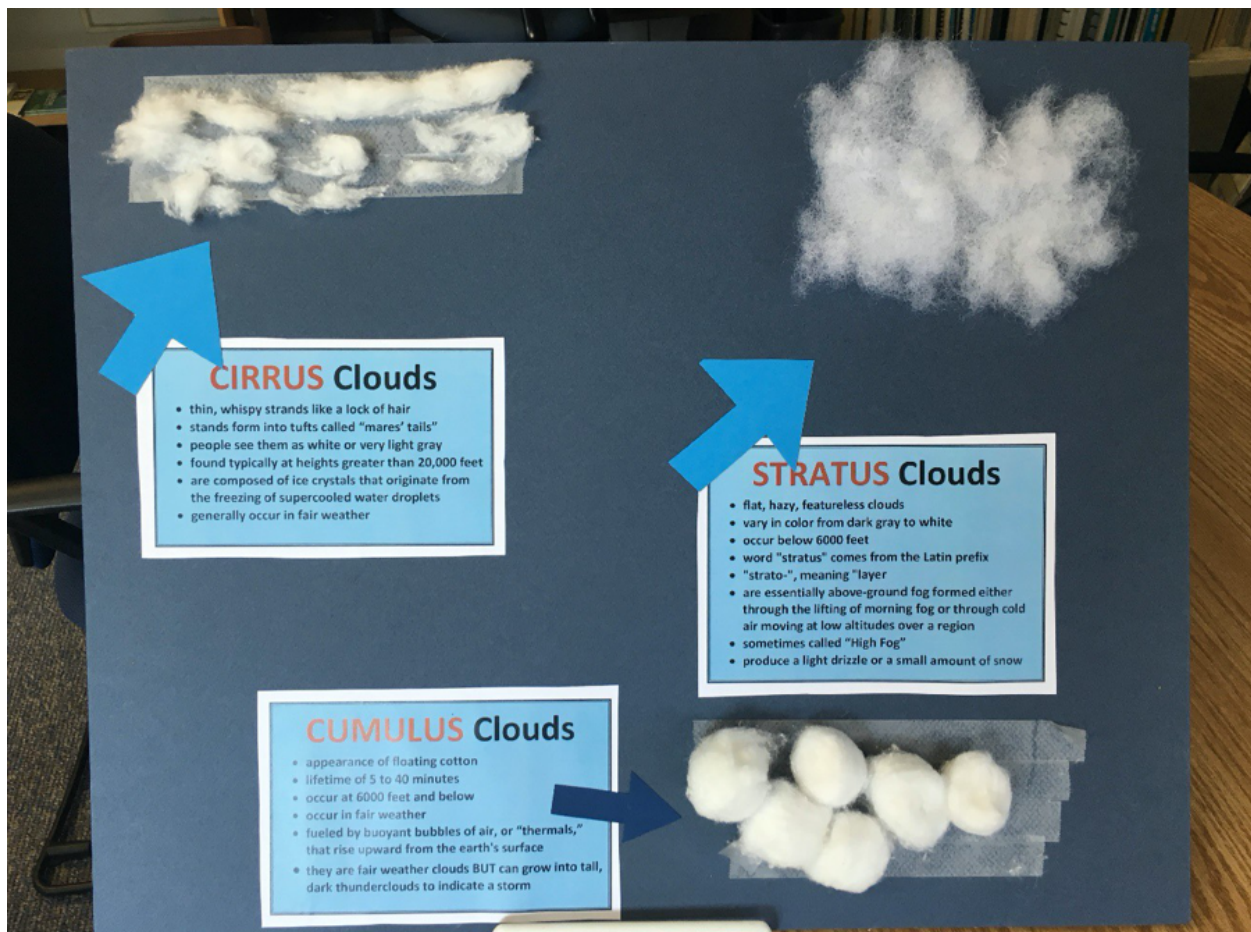
Stratus



Cumulus

SCIENCE CHAT (continued)

The National Oceanic and Atmospheric Administration and the National Weather Service provide these helpful resources about clouds: [The Four Core Cloud Types](#) and [Ten Basic Clouds](#). The informational children's books "Down Comes the Rain," "Clouds" and "Look at the Weather" (included in the READ section) provide child-friendly explanations of the science behind rain and cloud types. You might also consider creating and displaying your own cloud poster for the lesson (below is one we've used).



READ

POEM

Start your read aloud time with a poem from [It's Raining Pigs and Noodles](#) (2000) poems by Jack Prelutsky, illustrated by James Stevenson.

Here are suggestions from the Wisconsin Water Librarians, but feel free to choose your own or visit our subject-specific reading list: [Rain, Rain, Go Away](#).

Book descriptions are excerpted from the Cooperative Children's Book Center (CCBC), Kirkus Reviews, Publishers Weekly and Booklist.

[Tap Tap Boom Boom](#) (2014) by Elizabeth Bluemle, illustrated by G. Brian Karas.

“Sky grumbles. Rain tumbles. Big weather — you’d better ... get under umbrella! BOOM BOOM.’ A rainstorm in the big city on a summer day means the appearance of umbrellas, a mad dash for the subway, and a spontaneous, generous-spirited gathering belowground ... A delight to read aloud, there is ample opportunity for enthusiastic participation ... [while] the finely crafted rhyming phrases create a satisfying narrative arc.” (CCBC) Honor Book, 2015 Charlotte Zolotow Award **For ages 3-7.**

[Clouette](#) (2011) by Tom Lichtenheld.

“It’s not that [Clouette] isn’t popular with the larger clouds — ‘Everybody called her cute little names’ — but that she wants to do things like ‘make a waterfall fall,’ things that are ‘big and important.’ And bigger clouds have a monopoly on creating storms, watering crops, and replenishing rivers ... Clouette eventually finds a fine place to rain and gathers a raft of admiring comments ... Neatly constructed and nicely pitched, the message of self-reliance comes through as clear as a cloudless day.” (Publishers Weekly) **For ages 3–7.**

[It Looked Like Spilt Milk](#) (1947) by Charles G. Shaw.

“A favorite idea put into a book — identifying the shapes the scudding clouds take. Sometimes a bird, sometimes a birthday cake, sometimes a mitten, sometimes a tree, sometimes just spilt milk — what is it? A cloud. Children love to play this game from earliest identification, and will like a book that plays it with them.” (Kirkus Reviews) **For ages 2-5.**

[The Rain Came Down](#) (2000) by David Shannon.

“The squabbles caused by a brief shower on a busy street turn to smiles under the ensuing rainbow in this picture-book mini-drama ... Using a bright palette and making small details and facial expressions stand out, Shannon creates a gleaming, rain-washed neighborhood of gently caricatured residents ... with theatrical flair. Save it for a rainy day.” (Kirkus Reviews) **For ages 5-7.**

[Who Likes Rain?](#) (2007) by Wong Herbert Yee.

“Who wants rain? Who needs April showers? I know who ... the trees and flowers!’ A delightful series of rhyming questions and answers are prefaced by

playful descriptions of the rain as it falls on various objects ... A young Asian girl's experience throughout the gentle rainstorm is showcased in illustrations that begin with her sadly watching the rain through a window and then going outside to play. Wong Herbert Yee's quietly engaging picture book invites active participation among young listeners, who will use text and rhyming clues to eagerly offer up answers to the questions posed." (CCBC)
For ages 2-4.

Little Cloud (1996) by Eric Carle.

"A sophisticated idea deftly packed into a simple text. Little Cloud drifts away from its flock and turns into different shapes: sheep, airplane, trees, clown ... The result is a philosophical suggestion, scaled to a child's sensibility, as open to interpretation as the passing clouds." (Kirkus Reviews)
For ages 2-6.

Rain (2000) by Manya Stojic.

"An evocative depiction of the rain cycle in the African savannah marks Stojic's debut as writer and illustrator. Each page is filled with color, movement, and an impressionistic view of the African landscape. Brush strokes seem to leap off the page ... The large-size text and colorful illustrations make this a good title for read-aloud and its predictive, repetitive text lends itself to group participation and discussion. A delightful title from a talented newcomer." (Kirkus starred review)
For ages 3-6.

Rain Play (2008) by Cynthia Cotten, illustrated by Javaka Steptoe.

"Sprightly rhyming couplets advance a simple story of children at play in a park when it begins to rain. 'See the breeze / toss the trees. / Plip, plop. / Drip, drop.' The kids make the most of watery opportunity, jumping in puddles and finding things that float, until 'Flash! Boom!' Thunder and lightning send everyone rushing for the car. 'Wipers swish. / Sneakers squish' as

they head for the snug comfort of home. Javaka Steptoe's beautiful, textured collage illustrations show a jubilant — and wet! — group of African American children and a dad engaged in the 'rain play' that Cotten's lively narrative describes." (CCBC)
For ages 3-6.

Home in the Rain (2017) by Bob Graham.

"A brown-skinned mother and daughter, relentless rain, and the small stage of a car interior are all the elements needed to find quiet drama in an ordinary day. Francie, her mom, and her baby sister brave the highway for the drive home from Grandma's ... Glimpses of those they pass ... alternate with small moments inside their vehicle ... Details of family life emerge during the trip, like learning that Francie's father, who is white, has been away for three weeks, working at sea, and that her baby sister has yet to be born. A moment of inspiration at a service station stop for gas yields the new baby's name: Grace. By the time they arrive home, the setting sun makes an appearance, shining on a doorstep reunion with Dad." (CCBC).
For ages 3-6.

Elsina's Clouds (2004) by Jeanette Winter.

"Following in the tradition of the Basotho women of South Africa, where this story is set, young Elsina wants to paint the outside of her house. She is eager to make the designs in her head come alive. But Mama says Elsina must wait until the rains arrive and wash away what Mama painted long ago. Mama's paintings were a prayer to the ancestors for rain. But no rains have come ... With Mama expecting a baby, Papa builds a new room on their house. That's when Mama suggests the ancestors might listen to Elsina instead, and the little girl finally gets her chance to paint ... The downpours finally do come in Jeanette Winter's small, vibrant picture book about a young African girl's desire to express herself, and to take her place within a tradition." (CCBC)
For ages 3-7.

Raindrops Roll (2015) by April Pulley Sayre.

“From the beginning of a storm to the return of the sun, this splendid presentation reveals the wonder of water in the form of rain. Short, rhythmic lines, often only two words but rhyming or alliterative, are set one to a page against a full-bleed photograph. Sayre’s close observations, many in an ordinary garden, will lead readers and listeners to look more closely, too, both at her photographs and at the world around them ... Wonder-full in every way.” (Kirkus starred review) **For ages 3-8.**

Rain! (2013) by Linda Ashman, illustrated by Christian Robinson.

“A child and an adult look at rain from both sides. For the grumpy man, a rainy day is cause for complaint, but for the boy, it is undiluted joy ... An act of kindness and a bit of role playing lead to a change of heart, a happier outlook and a big splash. Text and illustrations are bound together in a package that is beautifully constructed and perfectly complementary ... Altogether delightful.” (Kirkus starred review) **For ages 4-8.**

Come On, Rain! (1999) by Karen Hesse, illustrated by Jon J. Muth.

“With poetic and immediate language, [Hesse] ... captures the cleansing experience of rainfall after a long dry spell. In an auspicious debut, Muth’s illustrations showcase an impressive range of perspectives ... His inventive design sense and use of watercolors — smudges of shadow, glistening sidewalks and foggy city-scapes — are remarkable.” (Publishers Weekly) **For ages 4-8.**

Clouds (2008) by Anne Rockwell, illustrated by Frané Lessac.

“[From] the popular Let’s-Read-And-Find-Out Science series, this Stage 1 title explores the different cloud types, their names and the weather each brings ...

Readers will learn that the names of the clouds indicate their height in the sky and their shape. Lessac’s bright palette depicts the seasons and the weather likely to occur underneath each cloud type.” (Kirkus Reviews) **For Ages 5-7.**

Rain (2018) by Anders Holmer.

“A pastoral panorama of bucolic settings, spare verse, and multicultural depictions of rain in this Swedish import ... On each rainy spread, life happens in haiku, with all its cultural variety and complexity... Visual details encourage readers to learn more about the countries of origin of the peoples and animals depicted throughout ... Most of all, [the poems] invite readers to pore over each colorful, expressive illustration to discover visual clues contained in the spare verse. A unique read-aloud that blends world cultures, poetic form, and natural splendor.” (Kirkus starred review) **For ages 5-8.**

Down Comes the Rain (1997) by Franklyn M. Branley, illustrated by James Graham Hale.

“Bright and cheerful as well as informative, Hale’s line-and-watercolor-wash illustrations give the pages a most appealing look. A good choice for classrooms studying rain, hail, or the water cycle. [A Let’s-Read-and-Find-Out Science book].” (Booklist) **For ages 5-8.**

Look at the Weather (2018) by Britta Teckentrup, translated by Shelley Tanaka.

“[Teckentrup’s] visual compendium of weather phenomena offers some scientific explanations along with more personal reflections ... A conversational, explanatory text supports the art, briefly describing the science behind rain or sunlight or wind ... An immersive, inviting mix of appealing art and information” includes a 27-item glossary. (Kirkus starred review) **For ages 5-10.**

SING

Use any song you like adapted to the theme of rain/clouds. Here are two song/rhyme suggestions that get the kids moving.



Little Clouds

Count the number of kids, begin with that number of clouds and repeat rhyme until that last child (“cloud”) rolls away.

[Insert number of kids] little clouds up in the sky

Drifting, floating way up high

One disappeared from the sky so blue

When a big gust of wind came blowing through.

Or:

5 Little Clouds

Five little clouds, so white and plain.

The first one said, “I want to make it rain!”

The second one said, “Where are we?”

The third one said, “In the sky, don’t you see?”

The fourth one said, “Let’s go, go, go.”

The fifth one said, “Look out below!”

Then out came the stars, out came the moon,

And the clouds rolled away but they’ll be back again soon!

DO SCIENCE

SHAVING CREAM RAIN CLOUDS

We have done this activity on and off for years. It's a bit messy but a big hit with children.
Adapted from: mudmates.co.nz/blog-shaving-cream-rain-clouds

Supplies needed:

Shaving cream (foam, not gel)

Water

Food coloring (various colors)

Eye droppers or pipettes (to dispense colored water solution)

Small, open-mouth containers for mixing water and coloring

Glass containers (jars, cups, vases) 14 ounces or larger

1/4 measuring cup

How to:

- ① Put 2 ounces (1/4 cup) of water in each of the small containers and mix in the food coloring (20 drops) so that you have three or four different containers with colored solutions. (Note: the more concentrated the coloring, the faster the “rain” will fall.)
- ② Pour water into your large glass containers, leaving about 1 or 2 inches at the top for the shaving cream. (Note: the thicker the shaving cream layer the longer it will take for the “rain” to come down.)
- ③ Using the eye dropper or pipette, drop colored water onto the shaving cream “cloud,” until you get the desired rainfall effect; use different colors as desired. (Note: droplets closer to the edge of the container penetrate the “cloud” more quickly.)

CRAFT 1

MAKE A CLOUD WHEEL

Create a cloud wheel like the one below. The number of partitions on your cloud wheel will vary depending on how many cloud types you discussed. Children can use the wheel at home to point to the types of clouds they see in the sky and talk about their properties. Depending on the skill level of the children and the amount of time available, you may want to make the wheels ahead of time and have them glue on clouds, draw the sun, and write labels.

Supplies needed:

*Large blue card stock
(cut into circles)*

*Construction paper
(for arrow and partitions, or sun)*

Brass fasteners

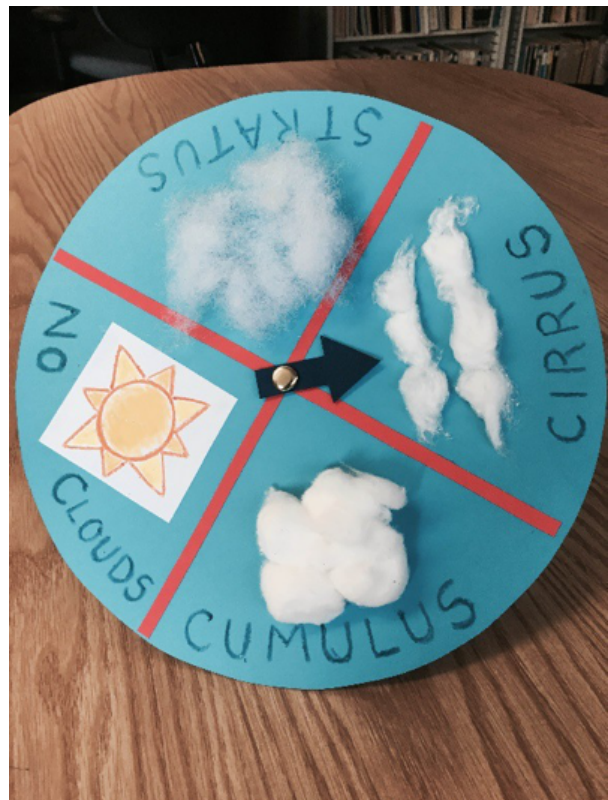
Scissors

Tacky glue

Crayons or markers

Cotton balls

Polyester fiberfill (pillow stuffing)



How to:

Create a turtle using paper plates, construction paper, torn pieces of crepe paper, markers and glue. It's a good idea to pre-cut the construction paper (turtle heads and limbs) and tear the crepe paper ahead of time, so the children just have to assemble them.

CRAFT 2

DIY RAINSTICK

From PBS Parents Crafts for Kids, DIY Rainstick:
pbs.org/video/crafts-kids-diy-rainstick

Supplies needed:

Cardboard tube (e.g., an empty paper towel roll)

Duct tape

Aluminum foil

Mix of corn kernels, rice and tiny noodles

Colorful construction paper to decorate the outside of the tube

How to:

- ① Cover one end of the paper towel tube with duct tape.
- ② Insert a longish piece of foil (formed into a tube shape) inside the cardboard tube (leaving enough room in the tube for the mixture of kernels and other materials to slide up and down).
- ③ Fill the tube about $\frac{1}{4}$ full with your mixture.
- ④ Cover the open end of the tube with duct tape.
- ⑤ Wrap construction paper around the outside of the tube.
- ⑥ Wrap duct tape around the construction paper near each end of the tube.
- ⑦ Make a little noise. Experiment with the different sounds you can make, depending on how slowly or quickly you tilt the rainstick.

LEARN MORE ABOUT RAIN, CLOUDS AND WEATHER

American Association for the Advancement of Science (AAAS) on how to make a cloud:
sciencenetlinks.com/student-teacher-sheets/make-cloud

Britannica School (Elementary) encyclopedia on rain and on clouds:
school.eb.com/levels/elementary/article/rain/400161 and
school.eb.com/levels/elementary/article/weather/353919
(Britannica is available to all Wisconsin residents with school or library access through
BadgerLink: badgerlink.dpi.wi.gov.)

Common Sense Media reviews of kids' weather apps, games and sites:
commonsensemedia.org/lists/weather-apps-games-and-websites#little-kids

National Oceanic and Atmospheric Administration (NOAA) SciJinks weather website for
students (mostly middle and high school): scijinks.gov
See also the SciJinks page on types of clouds: scijinks.gov/clouds

National Weather Service weather science content for kids and teens:
weather.gov/owlie/science_kt

National Weather Service JetStream information about clouds (including the "Core Four"
and "Basic Ten": weather.gov/jetstream/clouds_intro
See also NWS Online Weather School for educators and others: weather.gov/jetstream

National Weather Service lesson plan (color printout) for how to make a cloud
identification disc: weather.gov/jetstream/ll_holeclouds

University Corporation for Atmospheric Research (UCAR) Center for Science Education,
cloud image and video gallery: scied.ucar.edu/cloud-image-gallery

UCAR Center for Science Education Learning Zone on weather: scied.ucar.edu/weather

University of Illinois Extension Tree House Weather Kids (for grades 5-8):
extension.illinois.edu/treehouse/clouds.cfm?Slide=1

The Weather Guys (UW-Madison): wxguys.ssec.wisc.edu

World Meteorological Organization International Cloud Atlas (cloud classification
information and photo gallery featuring clouds and weather-related phenomena):
cloudatlas.wmo.int/home.html

SCIENTIFIC METHOD



A SCIENTIST IS SOMEONE WHO...

- Observes and wonders
- Asks questions
- Listens to ideas of others
- Conducts experiments
- Shares their ideas and discoveries
- Explores the world around them
- Uses tools to solve problems

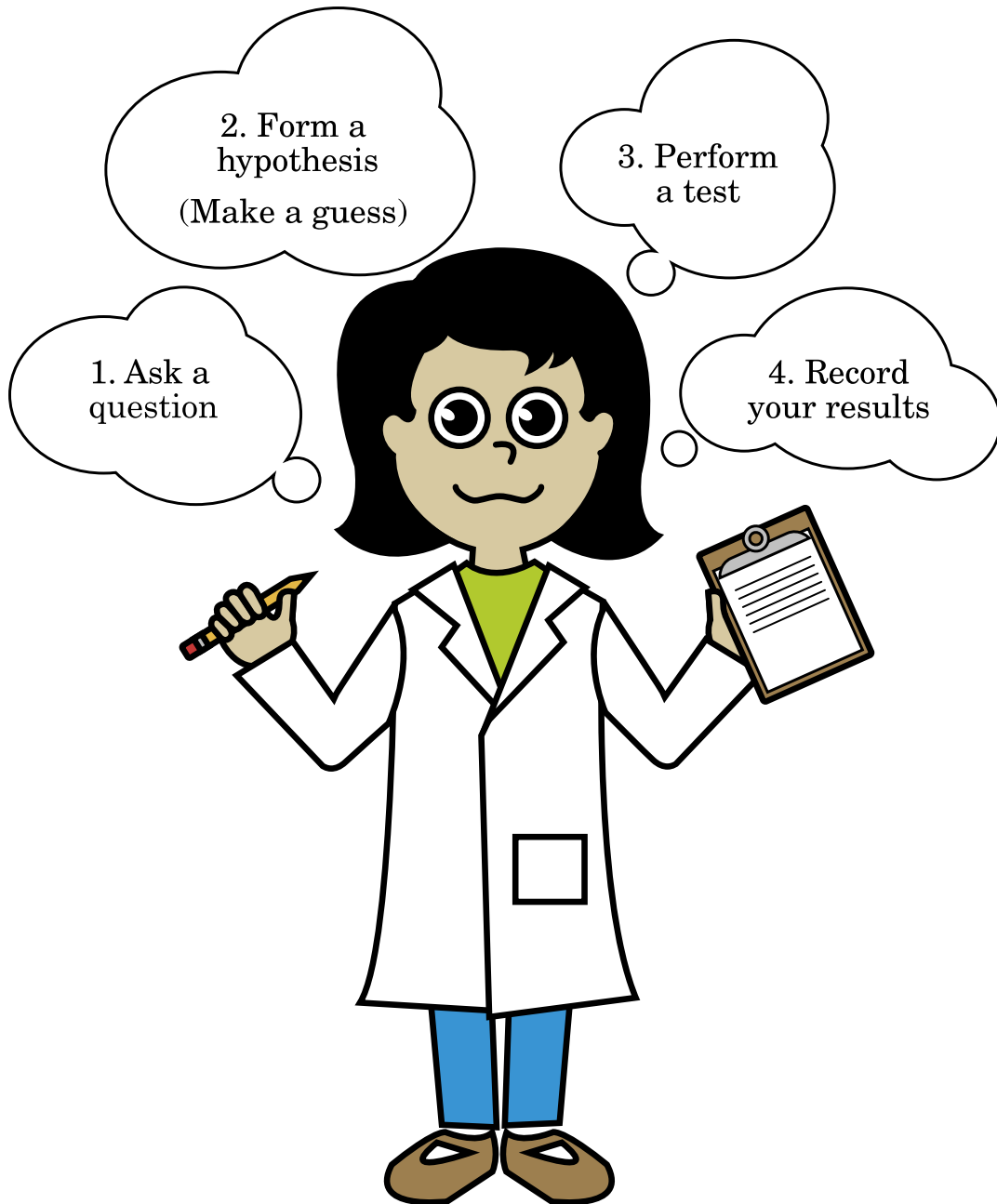
A SCIENTISTS SAYS...

- I agree with you because...
- I disagree with you because...
- Why do you think that?
- So, what you're saying is...
- Can you tell me more?
- Can you give me an example?
- How could we test that?
- That reminds me of...



SCIENTIFIC METHOD

THINK LIKE A SCIENTIST



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