

WEEK 5 Lesson 1

**Science and Engineering:
Observing the Sky: Watching Clouds**

S & E Big Ideas	Clouds are made of water, air and particles. Wind moves clouds across the sky. There are different types of clouds depending on the condition of the weather.
S & E Guiding Question	What types of clouds are in the sky?
Content Objective	I can cite evidence to identify a cloud. (SE.ESS1.1,SE.ESS1.2, Practice 6)
Language Objective	I can draw my observations of clouds. (SL.3.1.b)
Vocabulary	<p>cloud: a group of tiny water drops in the sky. Cirrus, cumulus, and stratus are kinds of clouds.</p> <p>cirrus: high, thin, stretched-out clouds composed of ice</p> <p>cumulus: big, fluffy, cotton-ball-looking clouds at low to middle heights in the atmosphere</p> <p>overcast: when the sky is gray and cloudy, but it is not raining or snowing</p> <p>stratus: huge, expansive layers of gray clouds that hang low and fill the sky</p>
Materials and Preparation	<ul style="list-style-type: none"> ● Forming Cumulonimbus (timelapse) video (1:43) link: https://www.youtube.com/watch?v=232LFz-aiz4 or Time-lapse video of spectacular storm clouds rolling over Darwin, Australia video (4:06) link: https://www.youtube.com/watch?v=CKSxv7GwG10 ● Kinds of Clouds poster, large poster for display Print on a large poster printer or replicate on chart paper. ● Kinds of Clouds poster, one 8.5x11 copy for each child ● Cloud type labels, one row per child ● blue construction paper, one sheet per child ● glue sticks

	<ul style="list-style-type: none"> ● scissors, one per child or one for each small group ● cotton balls, 3 per child ● What Are Clouds, by Ellen Lawrence, epic! text
Opening 10 minutes	<p>Show one of the time-lapse videos. Invite children to share their comments about what they saw.</p> <p>Read <i>What are Clouds</i>, pages 12-19.</p> <p>Refer to the Kinds of Clouds poster. Describe the three major types of clouds: cirrus, cumulus, and stratus.</p>
Investigation 15 minutes	<p>Explain to the children that they will be making cloud models using the cotton balls. Demonstrate how to make each cloud type.</p> <ul style="list-style-type: none"> ● stratus: Pull the cotton ball into thin wispy strips and glue on the paper. ● cumulus: slightly puff out the cotton ball so that it stays dense but has a puffy form. This can be done by gently pulling out the edges. ● stratus: Stretch the cotton ball lengthwise. Keep the cotton ball dense to show the density of the low settling clouds <p>Distribute the blue paper, cotton balls, glue, cloud type labels, and scissors.</p> <p>Children will glue the cloud models onto the paper. They will cut apart the names of the clouds and glue them beneath each cloud model.</p>
Discussion 4 minutes	<p><i>Let's name the clouds we modeled today!</i></p> <p><i>What predictions can you make about the clouds we can see outside today, based on our weather?</i></p>
Closing 1 minute	<p><i>Today we learned about different types of clouds and created a model of them.</i></p>
Standards	K-ESS2-1: Use and share observations of local weather conditions to describe patterns over time.
Ongoing assessment	Review children's clouds. Listen in and take notes as children make observations of clouds. Identify their questions.

KINDS OF CLOUDS



cirrus

feathery clouds associated with fair weather



stratus

smooth, gray clouds that block out sunlight; usually accompanied by steady rain and drizzle



cumulus

fluffy and white with flat bottoms; associated with fair weather

