Earth, Live: NYSSLS Alignment

Teacher guide for the one-page student worksheet at mrsajdak.com/maps/earth. Environmental Science or Earth Science, grades 9 to 12. The worksheet is low-write: tick boxes, short blanks and one or two written lines. The answer key is kept off the website; write to rsajdak@buffaloschools.org for it. © 2026 Ryan Sajdak. Free to use, share and change under CC BY-NC-SA 4.0 (creativecommons.org/licenses/by-nc-sa/4.0): give credit, do not sell it, share your version the same way.

What it is

A globe wrapped in recent NASA satellite imagery: daytime true color from the VIIRS instrument, city lights from NASA's Black Marble on the night side, and the line between day and night drawn for the time shown. Students can turn it, change the date and the time of day, press Now, and switch borders on.

Objectives

Printed on the worksheet, each with a box to tick.

I can	Questions
I can use a model of Earth to find day, night and clouds.	1 to 3, and 5
I can tell what changes from day to day and what stays the same.	4

Standards

Core ideas touched: ESS1.B Earth and the solar system (day and night) and **ESS2.D** Weather and climate (cloud patterns). The sheet does not assess a performance expectation by itself.

The science and engineering practices and crosscutting concepts below are named in New York State P-12 Science Learning Standards language, and each one is printed on the worksheet at the part where students use it.

Part by part

Part	Practice (SEP)	Concept (CCC)	What students do
1. Use the model	SEP 2 Developing and using models		Find four things on the globe and name a place in daylight and a place in the dark.
2. What changes?		Stability and Change	Predict what will have moved by the same time tomorrow.
3. What the model leaves out	SEP 2 Developing and using models		Name one thing about Earth the globe does not show.

Running it

About 10 to 15 minutes. The discussion item is the last row of Question 4. Many students say the day and night line "will have moved", because they watched it move during the period. At the same clock time tomorrow it is back in almost the same place. Only the clouds have really changed. The daytime picture is one to three days old, because the satellite images take time to arrive; the page shows the date.