

## STScI Education Materials Incorporated by State Departments of Education

Incorporation by a state department of education represents the “gold standard” in validating the quality of our products and establishing impacts.

*More than half the state departments of education in the United States use our materials as an incorporated or recommended element.*

Below are examples of education resources and materials incorporated by state departments of education:

- STScI’s *Amazing Space* website is integrated into Ohio’s **required** pre-service educator training program, reaching **over 20,000** pre-service educators annually.
- STScI’s *Amazing Space’s Telescopes from the Ground Up* is integrated into South Carolina’s grade 8 standards, reaching an estimated **55,000** students annually.
- *Amazing Space* is defined in the “Astronomy and Space Exploration” section of Louisiana’s Comprehensive Curriculum for Grade Eight Science, reaching about **52,000** students annually.
- *Amazing Space* is identified as a Core Curriculum Internet Resource for all grade 6 students in the state of Utah, reaching an estimated **45,000** students annually. An illustration of what is involved in adoption by a state department of education is summarized in the box below.

### Sample data for impact study follow-up: Use by a State Department of Education

**Who** – Utah State Office of Education

**Users** – 6<sup>th</sup> grade students (~ 55,000 per year)

**Identified Resource** – Hubble Deep Field Academy online activity

**How it is used** – Identified as a Core Curriculum Internet Resource for all grade 6 students in the Utah Elementary Science Core Curriculum.

**About the Utah Elementary Science Core Curriculum:** The Elementary Science Core Curriculum describes what students should know and be able to do at the end of each of the K–6 grade levels. It was developed, critiqued, piloted, and revised by a community of Utah science teachers, university science educators, State Office of Education specialists, scientists, expert national consultants, and an advisory committee representing a wide variety of people from the community. The Core reflects the current philosophy of science education that is expressed in national documents developed by the American Association for the Advancement of Science, the National Academies of Science.

#### Criteria for selection and use:

- Matches Utah state education science standards, e.g.,
  - Standard 3060-05: Students will begin to investigate the nature of the universe.
  - Standard 3060-0501: Explain the relationship of the vastness of space to objects found in space.
  - Standard 3060-0502: Explain how scientific development changes knowledge of space.
- The philosophy of Utah’s core curriculum is that students should be active learners. It is not enough for students to read about science; they must do science. They should have hands-on, active experiences throughout the instruction of the science curriculum. While doing the Hubble Deep Field Academy activity, students are active learners. Like scientists, they explore the HDF image, make observations, inquire, formulate and test hypotheses. They record, analyze data, report, and evaluate findings throughout the activity, and compare their results to astronomers’ results.

As testament to the quality of our education products, 27 state departments of education have adopted our materials: 9 as incorporated, and 18 as recommended resources. They are listed below:

<b>Incorporated use of STScI materials</b>	<b>Recommended use of STScI materials</b>
Michigan	Hawaii
Alaska	North Carolina
South Carolina	Vermont
Utah	Virginia
California	Washington
Georgia	Arkansas
Kentucky	Colorado
Louisiana	Delaware
Texas	Florida
	Maine
	Maryland
	New Jersey
	Idaho
	Kansas
	Massachusetts
	Mississippi
	New Mexico
	New York

**Table 1 State Departments of Education that incorporate or recommend use of STScI education materials.**