

# Smithsonian launches 'Journey through an Exploded Star' 3D interactive experience

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Credit: Harvard-Smithsonian Center for Astrophysics

The Smithsonian today made available a new online interactive experience that allows users to explore a three-dimensional (3-D) visualization of the remnants of a supernova, or exploded star.

Designed for use by both general audiences and high school science classrooms, the free materials, available at [s.si.edu/supernova](https://s.si.edu/supernova), include an interactive simulation, a 360° video, and a multimedia instructional package.

The project was created by the Smithsonian Center for Learning and

Digital Access in conjunction with the Center for Astrophysics | Harvard & Smithsonian (CfA), a collaboration that includes the Smithsonian Astrophysical Observatory.

To create the visualizations, the project uses data from the Chandra X-ray Observatory and Spitzer Space Telescope, the National Optical Astronomy Observatory's Mayall Telescope, and the MIT/Michigan/Dartmouth Observatory's Hiltner Telescope.

"Journey" features the data [visualization](#) work of Kimberly Arcand, visualization and emerging technology lead for Chandra, which is operated and controlled on behalf of NASA by the CfA.

"All of that data has to be translated and processed in a way that humans can see, so it's really important to be able to study our Universe using different kinds of light," said Arcand. "Each band of light gives you different information, so it's like adding puzzle pieces to fit into the greater whole."

"Journey through an Exploded Star" offers three ways to explore content:

- An online interactive simulation in which users navigate the fiery remains of a [supernova](#) and manipulate the real data to make their own visualization of the cosmos. (Closed Captioned, works across desktop browsers, and requires no software downloads.)
- A 360° video tour, narrated by Arcand, explains how and why scientists study supernovas such as Cassiopeia A: to gain a comprehensive picture of the cosmos. (Works on desktop, mobile, and Google Cardboard devices.)
- A high school classroom multimedia instructional package begins with the fundamentals of the electromagnetic spectrum and illustrates the production of elements from the explosions of

stars. (Aligned to Next Generation Science Standards (HS-ESS1-3 and HS-PS4).)

The director of the Smithsonian Center for Learning and Digital Access, Stephanie L. Norby, said, "Projects such as this one make science learning both exciting and relevant for students. Using media tools, they can make a personal connection to topics that may initially seem esoteric to discover that there are forces that connect everyone to the stars."

The Smithsonian Center for Learning and Digital Access makes all of this content freely available in its [Smithsonian Learning Lab](#).

Provided by Harvard-Smithsonian Center for Astrophysics

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