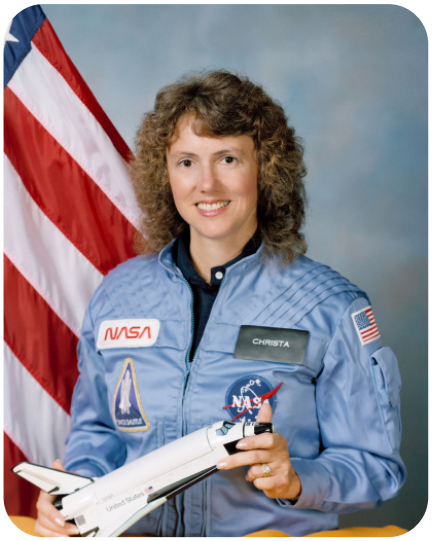


Christa McAuliffe

Time Capsule for Future Classrooms

TEACHER IN SPACE

Christa was a high school social studies teacher selected as the first civilian and teacher to fly into space. Her mission was to make space relatable to students and share the journey with classrooms across the country.

OBJECTIVE

Design a time capsule that could survive either on Earth or in space to teach students 100 years in the future.

HOW WILL STUDENTS ACHIEVE THE OBJECTIVE?

1. Learn about Christa McAuliffe and her mission as a teacher.
2. Research time capsules and space exposure.
3. Brainstorm what messages, lessons, or STEM tools would be valuable in the future.
4. Design and pack your capsule.
5. Write or record an explanation of your choices.

MATERIALS

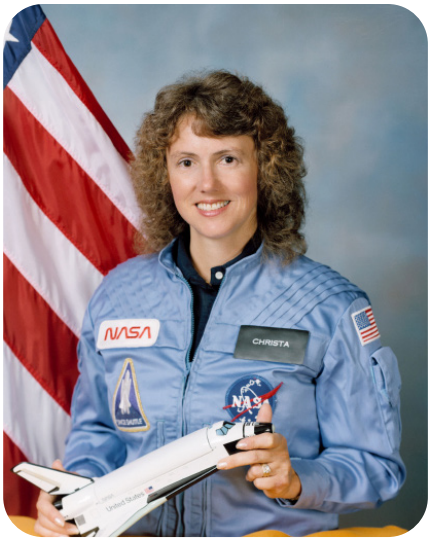
- Shoeboxes or sealable containers
- Aluminum foil, Ziploc bags, other “protection” materials
- Index cards or digital recording tools
- Art supplies
- Student worksheet (design plan, content log, reflection questions)

OPTIONAL EXTENTION

Create a digital time capsule (video, Google Drive folder, or QR-coded message) to be opened on a set future date.

STEP BY STEP INSTRUCTIONS

1. **Introduction:** Share background on McAuliffe and her experience as a teacher.
    a. On board the Challenger, one of her NASA assigned mission goals was to teach science lessons from space to children all over the world.
    b. See Biographical Data Sheet for her work experience with NASA
    c. Show a short video or presentation on Christa McAuliffe and her role as the first teacher in space. One example would be the video "Teacher in Space – NASA STI Program" by the NASA STI Program found on YouTube.
2. **Discuss Time Capsules:**
    a. What is a time capsule?
        i. **Answer -** Webster Dictionary defines a time capsule as: a container holding historical records or objects representative of current culture that is deposited for preservation until discovered by some future age.
    b. Why do people create them?
        i. **Answer –** various reasons such as storytelling for the future, to share memories, or to give people in the future a look into the past
    c. What challenges would exist if a time capsule was sent to space?
        i. **Answer –** various challenges could occur like temperature changes causing it to burn or freeze shut, orbital decay, collision with space debris, radiation exposure, someone not discovering it, change in trajectory, etc.
3. **Brainstorm:** Ask students to brainstorm what STEM-related items or messages future students might find important (prompt ideas like renewable energy sources, climate data, coding languages, or inspirational messages).
    a. Complete the first question on the Time Capsule Student Worksheet
4. **Design the Timecapsule:**
    a. Two design options:
        i. **Physical Time Capsule -** Provide students with containers and other supplies needed to create their capsule.
        ii. **Digital Time Capsule –** e.g., video, Google Drive folders, QR code messages.
    b. Complete the second and third question on the Time Capsule Student Worksheet
5. **Create:** Students create, organize and place their items, messages, or symbolic objects into the capsule.
6. **Explain:** Have students complete the remaining questions on the Time Capsule Student Worksheet.
7. **Present:** Groups share their capsule and reasoning with the class.



Christa McAuliffe

Time Capsule Student Worksheet

TEACHER IN SPACE

Christa was a high school social studies teacher selected as the first civilian and teacher to fly into space. Her mission was to make space relatable to students and share the journey with classrooms across the country.

What do you think future students should know about STEM and your world today?

List the items you're including and why they matter:

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

Design a Label or Logo for Your Time Capsule:
[Draw below or attach]

How would your capsule survive 100 years? What materials help it last?

Where should it be stored and why? (Earth or Space?)