

Network email in Cambridge

1971 | Grade 4 · Explain with evidence

Words to know

message — information sent to someone

network — connected people, places, or machines

invent — create a new tool, process, or idea

Look closely



Modern topic illustration created for Massachusetts History Explorers. It is not a historical artifact.

Read the story

Ray Tomlinson worked in Cambridge on early computer networks. He sent an early network email and used the at sign to help identify the user and computer. Messages could move between connected machines.

Earlier systems already had forms of electronic messaging. Tomlinson's milestone concerns network email between computers. Explain the specific innovation rather than calling every computer message the first email.

Think, talk, and show evidence

1. State the main idea. Support it with two details from the reading.
2. Explain a change or challenge described in the text. Which words support your answer?
3. Use one vocabulary word in a new sentence about this event.
4. What can the image and caption help explain? What can they not tell you?

Follow-up reading: Boston school desegregation

1974

A federal judge ordered changes after finding that Boston schools had been deliberately segregated. Busing became part of the response. Students and families experienced conflict, danger, and efforts toward fairer access.

Judge W. Arthur Garrity's order addressed government responsibility for segregation. Resistance included racist violence. Study students' experiences and court evidence alongside debates about transportation.

Compare the two readings. Explain one similarity or difference using a detail from each. Their order does not prove that one caused the other.

Teacher guide & source trail

Original classroom adaptation. Suggested reading levels are instructional choices, not standardized readability certifications. Use professional judgment and learner feedback.

ELA practice: RI.4.1: refer to details; RI.4.2: main idea and summary; RI.4.3: explain events; RI.4.7: interpret visual information; W.4.2 and SL.4.1: explain and discuss.

These tasks support selected skills in the [Massachusetts 2017 ELA framework](#); they do not establish mastery of an entire standard.

Answer guidance

Factual anchor: Ray Tomlinson worked in Cambridge on early computer networks. He sent an early network email and used the at sign to help identify the user and computer. Messages could move between connected machines. Earlier systems already had forms of electronic messaging. Tomlinson's milestone concerns network email between computers. Explain the specific innovation rather than calling every computer message the first email.

Accept accurate main ideas and explanations supported by the text. Vocabulary meanings are in the opening word bank. For picture questions, use the caption and credit below; distinguish what is visible from what is inferred. For comparison, accept a specific connection supported by both readings. Do not require personal accounts of trauma.

Continue the inquiry

[Research source for this event ↗](#)

[Research source for follow-up ↗](#)

[Event page, accessible HTML reading, and vocabulary game ↗](#)

Image: Original site illustration.

[Image source and rights record ↗](#)

The PDF contains selectable English text and embedded fonts. For adjustable text and browser reading tools, use the event's [HTML page](#). External sources may need adult guidance.