

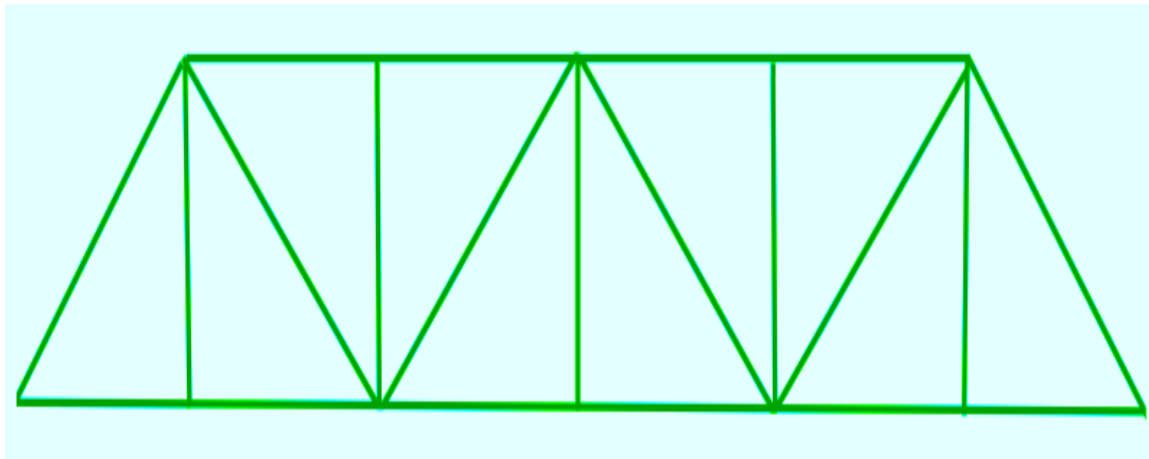
Name: _____

Date: _____

STEM Assessment Study Guide

Label the following parts:

- A. Joint
- B. Span
- C. Beam
- D. Column
- E. Deck



Why do people use bridges?

Explain the difference between compression and tension forces.

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Use the space below to draw a truss and label the following:

- A. Upper Chord
- B. Lower Chord
- C. Joint
- D. Web

List the 5 types of bridges and draw a small picture of each:

A. _____

B. _____

C. _____

D. _____

E. _____

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Match the following words to their definition and fill in the missing word.

- A. Column
- B. Load
- C. Chord
- D. Beam
- E. Web
- F. Member

1. _____: _____ acting on a bridge.

2. _____: A _____ structure member
strong in supporting vertical loads.

3. _____: A vertical, structural element, strong
in _____.

4. _____: Either of the two principal
members of a truss extending from _____ to _____.

5. _____: A _____ or _____ in the
frame of a bridge.

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6. _____: The system of members _____
the lower and upper chords of a truss.

Identify the testable question:

- A. Bridges are strong because of their materials.
- B. If I add more trusses then the bridge will be stronger.
- C. How will changing the bridge design affect the load that a bridge can carry?
- D. Which bridge is strongest?

Identify the hypothesis statement:

- A. I think that by adding more truss supports to the bridge, it will carry a heavier load because trusses help fight tension and compression forces.
- B. I should add more trusses to the bridge to make it stronger.

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C. Add trusses to make the bridge stronger.

D. If I add trusses it will be stronger.