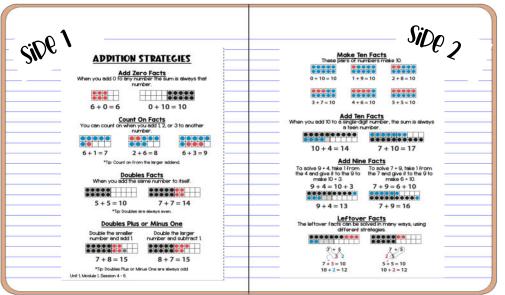


## TEACHER NOTES:

- This file contains student notebook pages for Bridges Grade 3 Math, Unit 8.
- These pages were designed to help differentiate based on student needs and allow students to go back and review key concepts.
- These pages are made to fit in any size notebook (composition or spiral). Simply cut on the dotted line and glue on necessary pages inside notebook.



Note: If you want to fit the whole page on a single notebook page, you will need to either print 2 copies per page <u>OR</u> scale the page down to 80%.

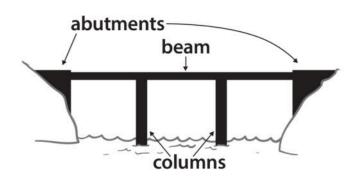
Fonts Used:

Headings: AG ADULTISH

Definitions: AG Lazy Level Expert Bold

### BEAM BRIDGE

### beam bridge



a bridge that consists of a beam supported by columns

### Real World Examples



Aizhai Beam Bridge, China



The Confederation Bridge, Canada



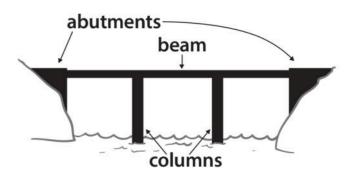
The Great Belt Bridge, Denmark



Hong Kong-Zhuhai-Macau Bridge, Hong Kong

### **BEAM BRIDGE**

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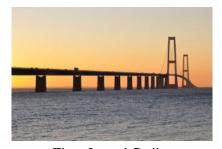


Unit 8, Module 1, Session 1

Aizhai Beam Bridge, China



The Confederation Bridge, Canada



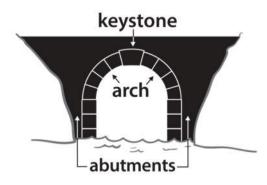
The Great Belt Bridge, Denmark



Hong Kong-Zhuhai-Macau Bridge, Hong Kong

### ARCH BRIDGE

### arch bridge



a bridge that consists of an arch stabilized by abutments on either side

### Real World Examples



Arvida Bridge, Canada



The Pont du Gard Bridge, France



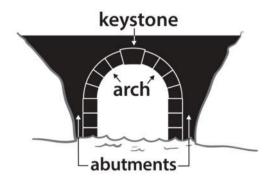
Stone Arch Bridge, Minnesota



The Glenfinnan Viaduct. Scotland

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Unit 8, Module 1, Session

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The Pont du Gard Bridge, France



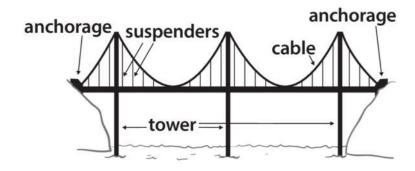
Stone Arch Bridge, Minnesota



The Glenfinnan Viaduct, Scotland

### SUSPENSION BRIDGE

### suspension bridge



a bridge that consists of a beam suspended from cables and suspenders extending between towers

### Real World Examples



The Golden Gate Bridge, California



Akashi Kaikyo Bridge, Japan



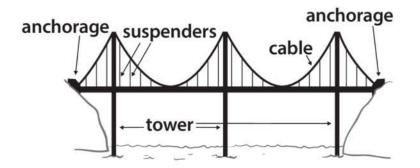
The Clifton Suspension Bridge, England



Yavuz Sultan Selim Bridge, Turkey

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Unit 8, Module 1, Session

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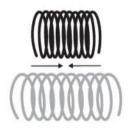


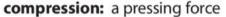
Akashi Kaikyo Bridge, Japan

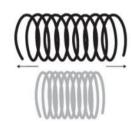


Yavuz Sultan Selim Bridge, Turkey

### BRIDGE VOCABULARY







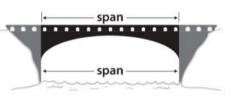
tension: a stretching force



**truss:** a framework of beams designed to support a structure, such as a bridge

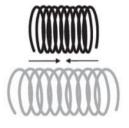


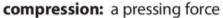
**anchorage:** the point at which a bridge is secured to land (in a suspension bridge, the cables are attached to the anchorages)

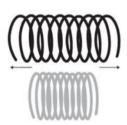


span: the section between two supports of a bridge (the span may extend from one abutment to the other with no supports in between, or it may span from one intermediate support to another)

### BRIDGE VOCABULARY







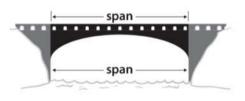
tension: a stretching force



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**span:** the section between two supports of a bridge (the span may extend from one abutment to the other with no supports in between, or it may span from one intermediate support to another)

# SUSPENSION BRIDGES CHART

| Other Information |  |
|-------------------|--|
| Examples          |  |
| Materials Used    |  |
| Design Features   |  |

|                        | Other Information |  |
|------------------------|-------------------|--|
| D N I V O E            | Examples          |  |
| INTERNIOR DRIPOES CHAR | Materials Used    |  |
|                        | Design Features   |  |

# OUR GUIDELINES FOR BRIDGE BUILDING

- Work together with teammates
- Let everyone explain their ideas
- Talk respectfully and quietly
- Ask each other questions
- Make compromises with teammates
- Everyone can build the bridge together
- Look at what other people are doing to get ideas, but don't copy other teams' work
- Keep work areas neat and clean up when the bridge is finished

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| 4115         | Grams Held     |  |
|--------------|----------------|--|
| I KIAL KESUL | Type of Bridge |  |
| KENGIH       | Materials Used |  |
| <u> </u>     | Team           |  |

| 712            | Grams Held     |  |
|----------------|----------------|--|
| I KIAL KESULIS | Type of Bridge |  |
| KENGIH         | Materials Used |  |
|                | am             |  |

# LENGTH TRIAL RESULTS

| Deck<br>Thickness |  |
|-------------------|--|
| Length            |  |
| Type of<br>Bridge |  |
| Materials<br>Used |  |
| Team              |  |

| Deck<br>Thickness |  |
|-------------------|--|
| Length            |  |
| Type of<br>Bridge |  |
| Materials<br>Used |  |
| Team              |  |

## LONGEST, STRONGEST BRIDGE JOURNAL ENTRY

| 1. Drawing:              |
|--------------------------|
|                          |
|                          |
|                          |
|                          |
|                          |
| 2. List of shapes:       |
|                          |
|                          |
|                          |
|                          |
|                          |
| 3. List of materials:    |
|                          |
|                          |
|                          |
|                          |
|                          |
| 4. List of measurements: |
|                          |
|                          |
|                          |
|                          |
|                          |
|                          |

# LONGEST, STRONGEST BRIDGE JOURNAL ENTRY

| 1. Drawing:              |
|--------------------------|
|                          |
|                          |
|                          |
| 2. List of shapes:       |
| E. Elor of Grapes        |
|                          |
|                          |
|                          |
| 3. List of materials:    |
|                          |
|                          |
|                          |
| 4. List of measurements: |
| I. Eler et medear emente |
|                          |
|                          |
|                          |
|                          |

Unit 8, Module 4, Session 3

Unit 8, Module 4, Session 3

# TRIAL RESULTS FINAL BRIDGE

|  | Load Limit        |  |
|--|-------------------|--|
|  | Length            |  |
|  | Type of<br>Bridge |  |
|  | Materials Used    |  |
|  | Team              |  |

| Load Limit        |  |
|-------------------|--|
| Length            |  |
| Type of<br>Bridge |  |
| Materials<br>Used |  |
| Team              |  |