

BRIDGES AND FORCES

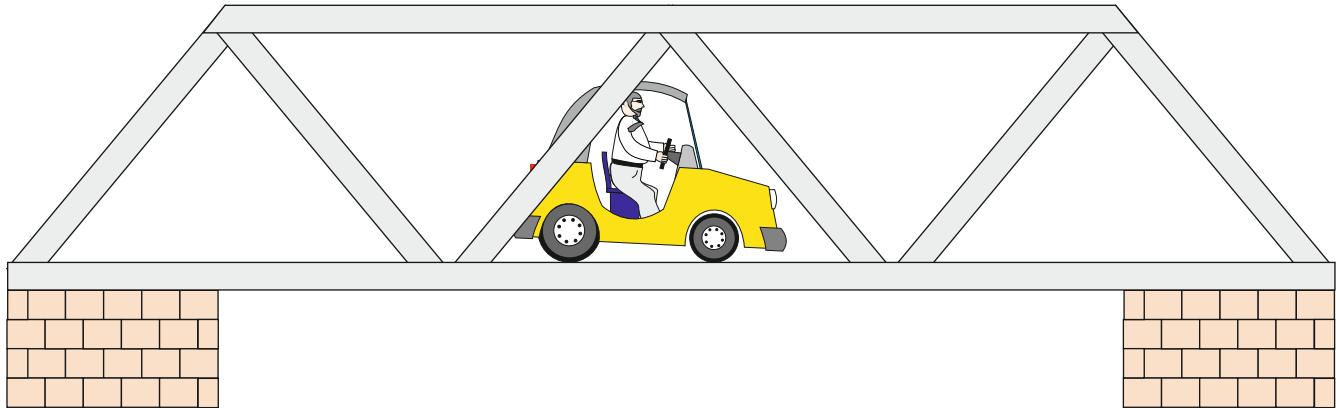
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1. The Box Girder bridge drawn below, is composed of triangular shapes. Why is this the case? **2 marks**



2. Draw arrows on the diagram above, that represent the forces acting on the bridge. Label the forces. **2 marks**

3. Describe and name the forces, that act on the top and bottom beams of the bridge, when a car passes over it. **4 marks**

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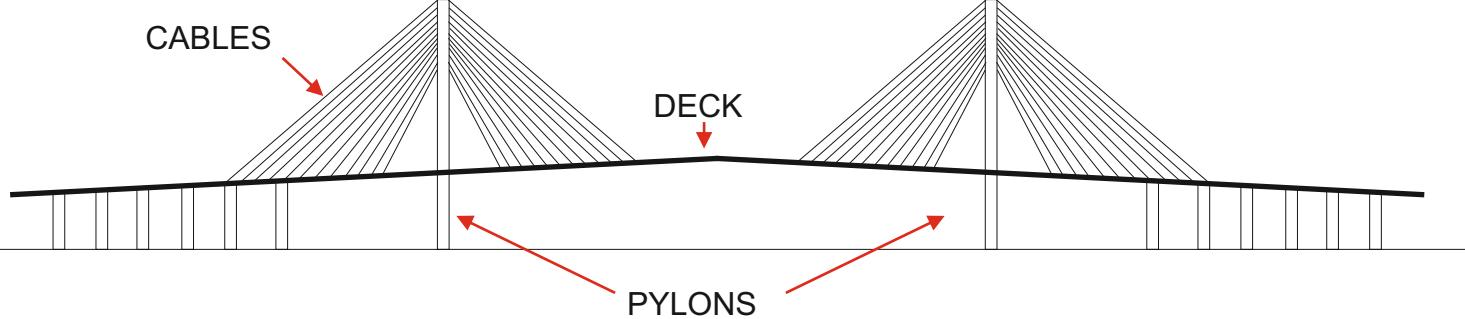
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- 4.** A Cable Stay bridge is drawn below. On the diagram, draw arrows that represent the forces acting on the main parts. Label the forces. **2 marks**

A CABLE STAY BRIDGE



- 5.** Draw a diagram of the 'deck' of the bridge shown above. Add labels that identify the forces applied to it, when vehicles travel across its surface. **4 marks**

- 6.** Explain how the forces you named when labelling the diagram, act on the cable stay bridge. **4 marks**
