

BRIDGES AND FORCES

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On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

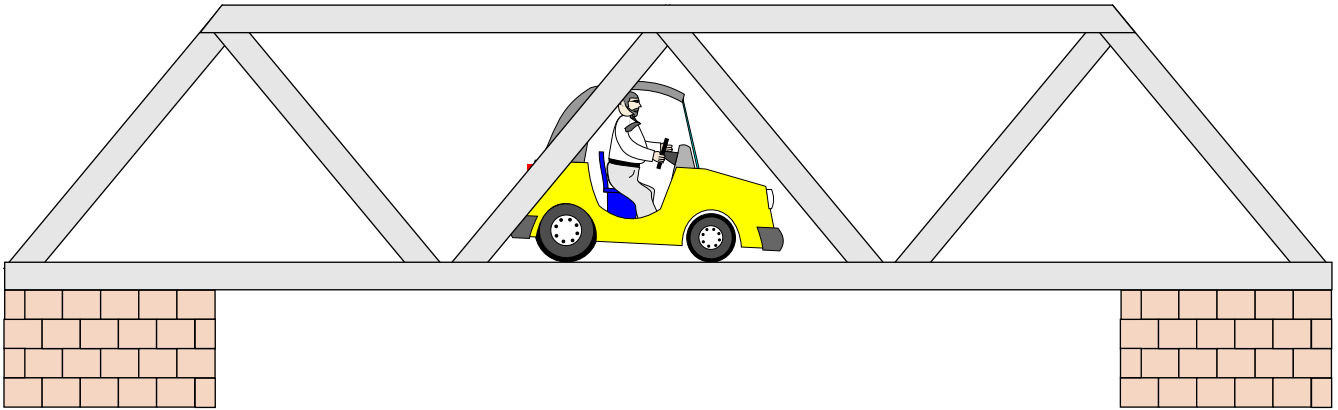
This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

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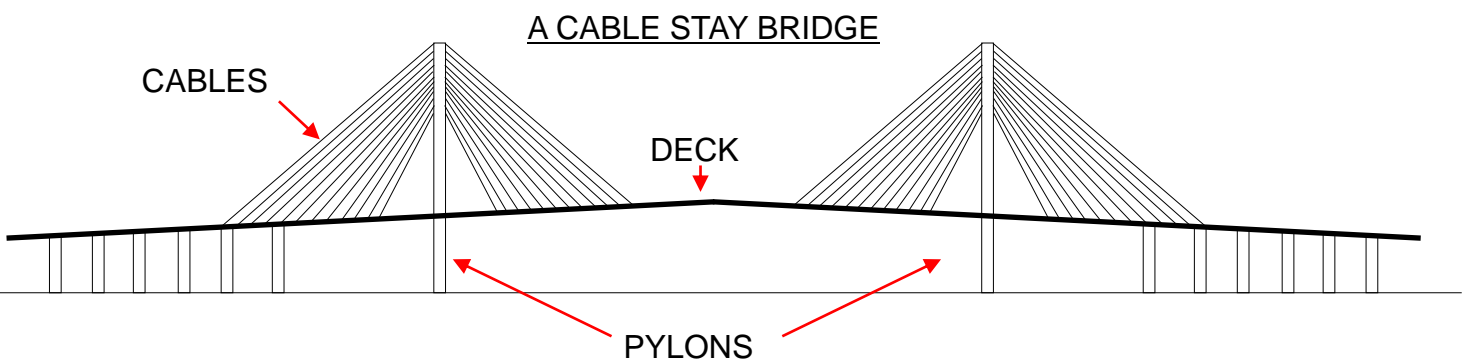
1. The Box Girder bridge drawn below, is composed of triangular shapes. Why is this the case?



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

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

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.



5. Explain how the forces you named when labelling the diagram, act on the cable stay bridge.