CAD of a Truss Bridge and its Paper Craft Model

Types of bridges and their mechanical properties are explained. Observing one bridge, Akaishi Bridge, students may understand mechanical functions of each members. With these knowledge, students propose several types of truss bridges with its span 30 cm. Calculating stresses of members by a Finite Element Analysis program on PC, students design the strongest structure and embody it by a paper craft. After presentation of concept of the design, the ultimate strengths of all the models are compared.

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