

# **Design & Technology**

## **AQA GCSE**

# **Materials and objects can be manipulated to resist and work with forces and stresses**

### **Materials required for questions**

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- Pencil
- Rubber
- Calculator

### **Instructions**

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- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

### **Advice**

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- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

# **Good luck!**

**Q1.** What is the main force being exhibited during a tug of war?

- A**      Compression
- B**      Tension
- C**      Bending

**Q2.** What is the main force being exhibited when someone sits on a stool?

- A**      Compression
- B**      Tension
- C**      Bending

**Q3.** What is the main force being exhibited when someone cuts paper with scissors?

- A**      Torsion
- B**      Tension
- C**      Shear

**Q4.** What is the main force being exhibited when someone crosses a wooden plank bridge

- A**      Compression
- B**      Torsion
- C**      Bending

**Q5.** Describe what forces are acting on the bow and arrow in the image below before it is fired **(3 marks)**



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## **Answers**

**Q1. B**

**Q2. A**

**Q3. C**

**Q4. C**

**Q5.**

- Tension
- Compression
- Bending