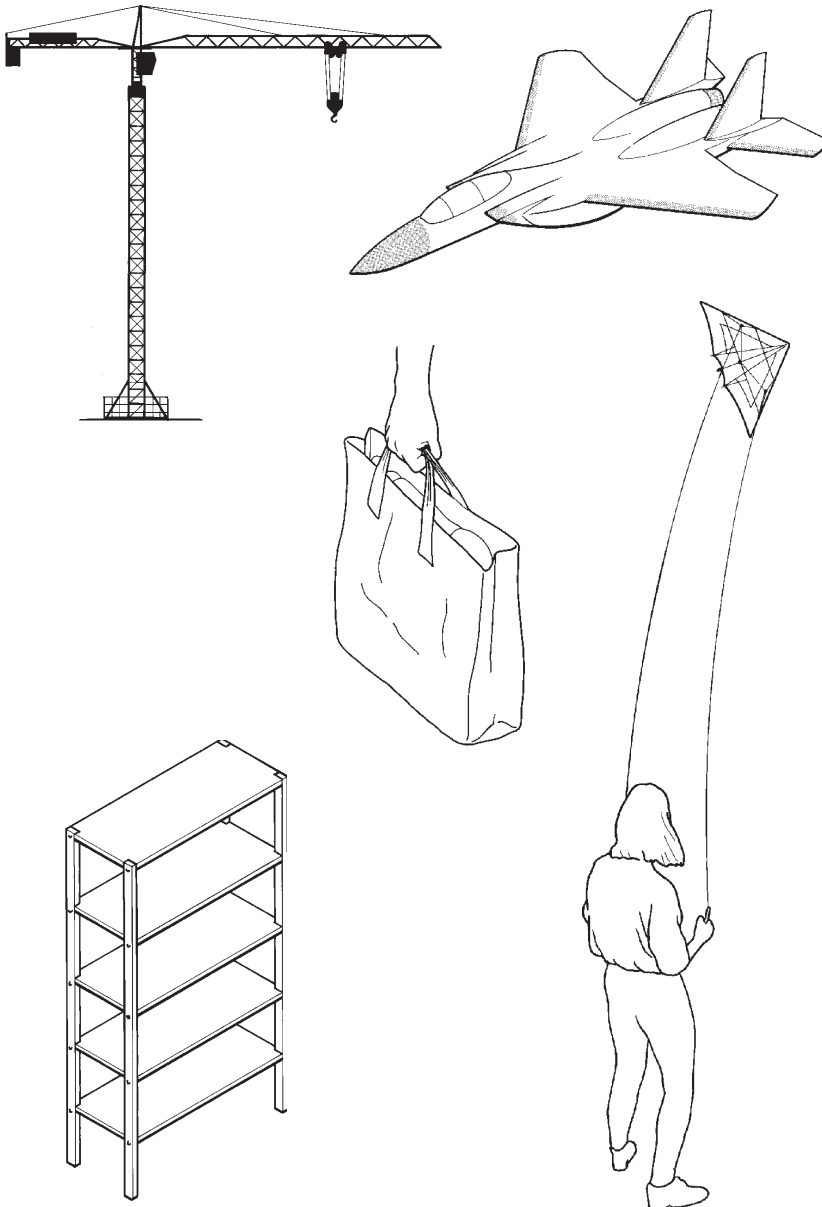


INTRODUCTION

What do the objects illustrated on this page have in common? They are all examples of structures. Although it is quite difficult to define precisely what structures are, we can describe what is expected of them:



- Structures should support loads or resist forces.
- Structures should be stable.
- Structures should have a built-in 'margin' of safety.

STRUCTURES - INTRODUCTION

When structures are designed, all these factors must be taken into account. Designers use a variety of methods to ensure that structures 'work'. These include applying basic data and mathematics and using computer modelling and actual scale models. New materials and construction methods have enabled designers to be very adventurous and this is nowhere more apparent than in the design of 'high technology' buildings.

This book will introduce you to the world of structures by looking at some important structural principles and applying them to design and make things. As well as learning about structures, you will learn about new materials and the methods engineers use.

◀ NOTE

See Technology Study File 16 (Useful Engineering Data)