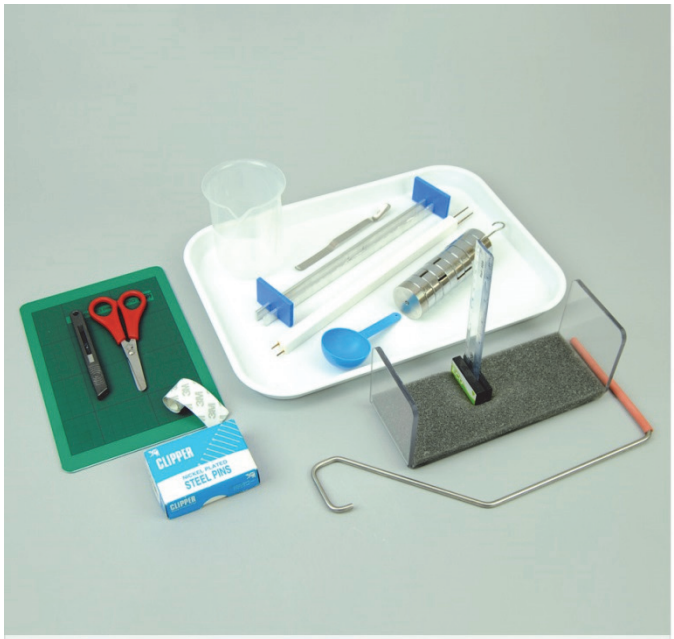
Product Information Sheet

Structures and Materials Teaching Set



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121-02

Our STEM learning packages have been designed to provide practical real world problem solving tasks and activities within the classroom or lab environment. These activities will provide an engaging approach that helps instructors show contextualized linkages between Science, Technology, Engineering, and Mathematics.

This set includes access to digital curriculum materials including theory and practical learning tasks, as well as tutor support resources.

Students can also have access to hands on learning opportunities within our optional cloud-based STEM curriculum software packages. This easy to use software also contains theory presentations, virtual investigations, and support materials to underpin the practical tasks.

The Structures and Materials package offers student activities either individually or in small groups, to investigate the science and technology behind the built environment.

The equipment included enables students to explore beam designs and then perform destructive testing on them to analyze the properties of their materials and the performance of their design.

Typical Practical Activities Include:

- Identify the forces that act on structures
- Investigate how skyscrapers are constructed
- Construct model beams from wood
- Use a computer model to design beams
- Explore the use of concrete as a construction material
- Construct a reinforced Plaster of Paris beam
- Research the use of concrete additives
- Identify examples of how sustainable materials can be used in construction
- Develop a composite material using recycled materials and test its properties
- Identify different styles of bridges
- Design and construct a model bridge
- Research bridge designs
- Test a model bridge

Items Included:

- Structures and Materials Class Consumable Pack x 1
- Structures and Materials Student Resource Packs x 12
  - Beam Building Equipment
  - Beam Testing Equipment
- Curriculum in Digital Format

Other Items Required:

- LJ Create Engineering or Technology Content (Optional)
- Computer
- Water Supply

General Information:

Packed Volume: Approx. 0.009 m^3
Packed Weight: Approx. 5.5 kg

Order Code: 121-00

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For more information visit www.ljcreate.com