



## **Selection Steel – FORMAL CPD ASSESSMENT**

### **TOPIC**

Designing with Steel – History and Benefits of Steel Through the Ages

### **OVERVIEW**

A lesson in the history of steel and steel technologies in building applications from the Industrial Revolution through to current day, including future trends.

### **LEARNING OUTCOMES**

1. Gain a basic understanding of corrosion theory.
2. Understanding modern architecture and the use of steel.
3. Gain an appreciation of the inherent benefits of using light gauge structural steels.
4. Understanding the development of coated steel technologies including paint and metallic coating alloy types.
5. The steel value proposition.
6. Designing for prolonged service life.
7. Future steel making and coated product technologies.
8. *Formal Outcomes: Project Initiation and Conceptual Design – PC18, PC 28. Detailed Design and Construction Documentation – PC39, PC45.*

**1. Which modern method of steel making is more efficient to recycle resources?**

**2. Complete this sentence;**

**Electric Arc Furnace produces (how many times) lower CO<sub>2</sub> emissions when compared to a Blast Furnace?**

**3. In what time period was steel first discovered?**

**4. In which country is the Industrial Revolution claimed to have started?**

**5. When was the first steel framed building constructed and what was it?**

**6. What alloy is added to Zinc to improve barrier protection?**

**7. Who discovered the electrical phenomenon of dissimilar metals?**