E9.1

UNIT E9 · WORKSHEET

The roles of engineers

UNIT PROGRESS

Core BUILD THE BASICS

C1 **State** which engineer designs a power cable. [1]

C2 **State** which engineer designs a sensor circuit. [1]

C3 **State** which engineer designs a gearbox. [1]

C4 **State** which engineer designs the tower base of a wind turbine. [1]

C5 **State** which engineer programs a microcontroller. [1]

C6 **State** which engineer designs the cable from a wind farm to the grid. [1]

C7 **State** which engineer designs the gears in a ski lift. [1]

C8 **State** which engineer checks how a new road affects wildlife. [1]

C9 **State** which engineer designs a printed circuit board. [1]

Stretch GO FURTHER

S1 A distillery is fitting a new automatic still. **Describe** one task for an electrical engineer and one for an electronic engineer. [2]

S2 **Describe** one task an electronic engineer carries out on a hand dryer. [1]

The roles of engineers

S3 **Describe** one task an electrical engineer carries out on a hand dryer. **[1]**

S4 An answer says 'An electrical engineer works with electricity.' **Explain** why this gains no mark. **[1]**

S5 **Describe** two tasks a mechanical engineer would carry out on a level crossing barrier. **[2]**

Exam Ready QUALIFICATIONS SCOTLAND STYLE

E1 A new road is built to Cairnloch ski centre. **State** the type of engineer who would monitor the effect on the land. **[1]**

E2 **Describe** two tasks an electronic engineer would carry out for the snow-cannon control system. **[2]**

E3 Glenmorie Distillery (fictional) installs a new bottling line. **Describe** one task for an electronic engineer and one for a mechanical engineer. **[2]**

E4 **Explain** why an electrical engineer and an electronic engineer must work together on an electric car charger. **[2]**

Total: 23 marks. Use the Data Booklet. Show your working and give units.