E0.1

UNIT E0 · WORKSHEET

Input, process, output

UNIT PROGRESS

Core BUILD THE BASICS

C1 **State** what is meant by a system. [1]

C2 **State** the three parts of the universal system diagram, in order. [1]

C3 **State** the external output of a torch. [1]

C4 **State** what the system boundary shows. [1]

C5 **State** the main input energy of a hair dryer. [1]

C6 **State** the main output energy of a hair dryer. [1]

C7 **State** the input of an automatic door system. [1]

C8 **State** the output of a doorbell system. [1]

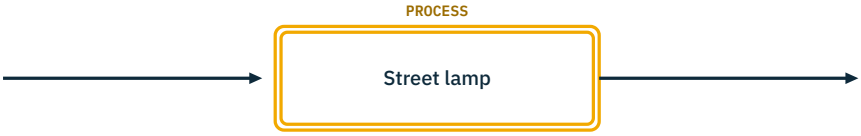
Stretch GO FURTHER

S1 **Complete** a system diagram for an electric drill. [3]

S2 A mobile phone charger takes in mains electricity. **Describe** its external input and output. [2]

Input, process, output

S3 **Complete** the system diagram for a street lamp. **[2]**



S4 **Explain** why sound is not the main output energy of a kettle. **[2]**

S5 **Describe** the process part of a hand dryer. **[1]**

Exam Ready QUALIFICATIONS SCOTLAND STYLE

E1 A snow-making machine at a ski centre is a system. **Complete** a system diagram showing two external inputs and one external output. **[3]**

E2 **Explain** why a system diagram does not show the motor inside a food mixer. **[2]**

E3 **State** one advantage to engineers of the systems approach. **[1]**

E4 A security light (Kinbrae, fictional) switches on when it detects movement. Complete a system diagram with its input and output. **[2]**

Input, process, output



E5 **State** the main input energy and main output energy of an electric motor. **[2]**

E6 **Describe** the difference between an input to a system and an input device. **[2]**

Total: 30 marks. Use the Data Booklet. Show your working and give units.