

## Unit 6C

### Control and Monitoring What happens When?

#### Unit 6C

This unit deals with using input devices / switches to control a process.

#### Vocabulary

If  
Then  
Until

#### Resources

R M Computers  
R M Light Sensor Packs

#### Assessment

All children will be able (with help) produce very simple procedures.  
Most children will be able to produce simple procedures to turn on a buzzer.  
Some children will be able to produce procedures and recognise the weakness of the system.

## Unit 6C

### Lesson 1

#### Teacher Task

Discuss how many devices use a cause and effect reaction system.

For example :- Central heating has a thermostat which switches on the boiler when the temperature drops to a certain pre-determined degree. (physical change).

Street lights turn on when it gets dark. (timed event).

Discuss the difference between physical change events and timed event changes.

#### Pupil Task

In computer book write down 3 systems that use monitoring to control events. HINT ( usually use temperature, light or sound).

Write down under each system how they think it works.

#### Learning Outcome

Children learn that devices can monitor physical changes.

Children learn that devices cause an event to happen when a change occurs.

### Lesson 2

#### Teacher Task

##### Skill 1

Demonstrate how the light and temperature sensors plug into R M machines.

Look at how the meters showing what the sensors are reading.

Write a simple procedure with the class for the sensor. If light level drops below X then buzzer sounds.

## Unit 6C

### Pupil Task

Get class to set up procedures and check that it works.

### Learning Outcome

To learn that an input device can be used to cause an event.

### Lesson 3

Repeat above to ensure total class completion.

### Lesson 4

#### Teacher Task

##### Skill 2

Demonstrate C0 – C0 Plus Smart Box (they have seen this in year 5).

Use the house model.

Explain that the house has a light sensor and a door buzzer.

Demonstrate the procedure to operate the buzzer, top floor (bedroom) light comes on, then hall.

This is as if someone is answering the door.

Class writes down procedures in computer book.

##### Problem

In fours they need to write a one page story incorporating house lights and buzzer to enact before class - remembering one will narrate so they must get the timing spot on.

As there is only one Co – Co plus machine one group has the opportunity to use it on a weekly basis.

Co – Co plus station is on a trolley and can be brought into the classroom if required.

## Unit 6C

Each group demonstrates at end of lesson, and class evaluates whether they have followed set criteria.

Other pupils in class can use computers for other tasks whilst awaiting their groups turn.

### Learning Outcome

Children learn to use input and output devices and produce a simple set of instructions linking causes and effects.