



## **Forensics Academy** KS2 duration: 4 hours

The application of science to criminal and civil laws fascinates us all. Here student investigators analyse evidence collected from a crime scene among the We The Curious exhibits, using classic fingerprinting techniques and gel electrophoresis DNA fingerprinting, plus microscopy, to find out whodunit!

### **Key Words:**

Forensic science. Analysis. Crime. Evidence. Laboratory. Fingerprinting. Latent fingerprints. Microscopy. DNA. Gel electrophoresis.

### **Learning objectives**

Understand how scientific evidence can be applied to real-life situations

Learn how to collect and preserve evidence

Gain experience with some basic forensics' techniques, including interpreting handwriting samples, and fingerprint dusting

Use microscopes as a tool for analysis

Learn basic lab techniques

Work safely in a laboratory and minimise contamination

Visualise DNA profiles using gel electrophoresis

Collect and interpret evidence to draw reasoned conclusions

### **Content:**

The Forensics day provides an all-round introduction to Forensic science. Students try key techniques of forensic science, are introduced to DNA, and put their learning into practice to solve a 'crime' – collecting evidence within We The Curious

### **Example Timetable**

10:00 Arrival and welcome

10:15 Forensics academy: students try key techniques

11:15 Crime scene challenge: a forensic tool kit and newly acquired skills are used to solve a crime

12:00 Lunch and time to explore the venue

13:00 DNA detectives: produce and interpret DNA profiles

14:15 End of activities

### **Curriculum Links:**

#### **Working scientifically**

Using scientific enquiry to answer questions

Taking measurements: Using scientific equipment with accuracy and precision

Using test results to make predictions

Reporting and presenting findings, drawing conclusions and evaluating degree of trust

Identifying scientific evidence to support or refute ideas or arguments

### **Potential Hazards**

Aluminium fingerprint dusting powder may aggravate asthma (dust masks are available, or activity can be omitted for individual students). Students will work in a lab environment with TAE buffer and gel electrophoresis tanks.