



DESIGNED AND PRODUCED BY





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### Exhibition overview

In Top Secret: Licence to Spy the visitor acts as a secret agent, uncovering facts and investigating leads to determine which of the suspects, if any, can be implicated in the crime.

Based around a James Bond-style fantasy of exotic locations, high-tech equipment and, of course, a mystery to solve, Top Secret: Licence to Spy focuses on the science and technology of spying and espionage.

On arrival at the exhibition, the visitor is presented with a scenario and six suspects. Armed with a Spy File, the visitor is challenged with gathering intelligence from selected exhibits to uncover information on the suspects, leading them on a journey of discovery into the secret world of spies.

#### Audience appeal

Top Secret caters for a wide audience and encourages families and students to collaborate to piece together the clues and fulfil the mission. Older children and teenagers will especially enjoy the challenge of working through the entire exhibition. Younger children can also benefit from the experience with stand-alone interactive exhibits such as the Laser maze and Photo disguise.

### Key learning outcomes

This exhibition is an excellent vehicle for demonstrating how scientific thinking can be used to solve problems in many aspects of everyday life. Visitors also have the opportunity to use various espionage-related technologies, learn how they work and how they can be used in the wider world.

#### **Key messages**

#### 1. Technology plays an important role in spying

Technology is used by spies to obtain information and gain an advantage over someone else. It can improve the ability of spies to both gather and hide information, such as bugging a room with microphones and cameras, or using equipment to detect and remove such devices.

#### 2. Spy technology has some basic foundation in science

Much of the technology used in espionage has some basic foundation in science, and scientific principles have been applied to design and create spy technology. For example, the Laser listening exhibit uses sound vibrations as the basis of a laser beam device that can detect noise from a distance.

#### **3.** The spying process mirrors the scientific process

A spy must use the procedures of surveillance, monitoring, research and interpretation to collect a significant amount of information. In doing so not everything that is found is useful, and not everything that is useful may be found. As such, the spy must weigh up the evidence they can collect and draw conclusions. Scientists employ similar methods by making observations, collecting data and analysing results in order to come to a reasonable conclusion about a scientific case.

## Exhibit descriptions

#### Top Secret: Licence to Spy consists of 21 interactive science exhibits, graphics panels and extensive supporting sets and equipment.

A spy file accompanies the exhibition. This is presented as a folded A4 flyer that can be printed and provided to visitors as a guide to navigate the exhibition. Inside the file, there is information about the suspects and room to record findings as they move through the exhibits and the Code Room.



## Q's workshop

Taking its name from the James Bond films, this exhibit comprises gadgetry commonly used by spies and provides a scene-setting entry into the exhibition. There is a shoe phone, an umbrella that can double as a satellite dish and a brief case with a false bottom. As well as these static displays, *Q's* Workshop also includes two interactive exhibits: Find the bug and Hidden camera. SCIENCE LINKS: Technology





### Hidden camera

Visitors can see a screen displaying four security images which shows Q's Workshop from different angles. Their challenge is to locate the hidden cameras that are the sources of these images.

SCIENCE LINKS: Observation, Problem Solving



## Find the bug

Radio bugs have been strategically placed throughout Q's Workshop. Visitors can locate the bugs by watching the reactions on an oscilloscope while tapping various objects around the room. SCIENCE LINKS: Observation, Problem Solving

#### Exhibit descriptions continued...



# See in the dark

A night vision camera allows visitors to search for clues in a room that is otherwise shrouded in darkness and reveal a potential hostage, ID tags and items used for a disguise. SCIENCE LINKS: Biology, Physics (light), Technology

## Spy satellite

By placing their thumbprint on a scanner visitors can access satellite technology to zone in on an area of suspicious activity. They can narrow the field of view using the latitude and longitude coordinates to direct the spy satellite and get a closer look. Eventually, they will reveal a boat with the name See Saw on the roof, a clue to the owner's identity. SCIENCE LINKS: Technology, Geography



### Hidden image

Another agent's cover has been blown and he has left behind a hidden message. By quickly waving their hands over a bush, visitors reveal a light projection of the CROWN logo. SCIENCE LINKS: Cryptography, Technology

### Sound beam

When they walk across an intersection in the exhibition visitors will overhear a private conversation between two key characters related to the mission. By listening carefully they pick up clues that will assist them in the *Guess the password* exhibit. SCIENCE LINKS: Acoustics, Observation, Problem Solving





#### Exhibit descriptions continued ...

### Downlink

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To receive important information from the Agency head office, visitors need to access a secure satellite transmission. To do this, they must turn a satellite dish to the correct azimuth and elevation angle. Once the dish is positioned correctly, they will receive a message, but need to check that they have tuned into the correct satellite. SCIENCE LINKS: Technology, Mathematics

### Guess the password

Visitors are presented with picture clues from Iwanda Wye's desk. Using these clues and remembering what they overheard at the Sound beam exhibit, they need to try and enter the correct password on the exhibit screen so they can disable the CROWN. SCIENCE LINKS: Problem Solving









### Laser listening

Visitors see two people through a window who appear to be having a secret meeting. Even though they can't hear the conversation through the glass, they can use the laser beam listening device and so detect the vibrations in the glass to listen in. SCIENCE LINKS: Physics (sound and light)

### Microdot

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A newspaper clipping contains a microscopic dot that will reveal a clue. By slowly scanning the newspaper using a microscope, visitors can locate the dot and discover the hidden information. SCIENCE LINKS: Cryptography

### Data dump

Visitors can inspect rubbish belonging to three persons of interest. By looking at items in the rubbish, they can collect information, which may help them to solve the crime. SCIENCE LINKS: Forensic Science, Observation

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#### Safe breaker

This exhibit challenges visitors to crack open a safe containing important documents. A transparent combination lock shows the internal workings so they can open it section by section. When they successfully align each section, the safe opens to reveal the documents.

SCIENCE LINKS: Problem Solving, Technology









## The Brainiac tapes

Security cameras at Brainiac HQ have captured some unusual behaviour. When visitors view the tapes they can uncover a number of clues regarding the theft of the CROWN.

SCIENCE LINKS: Observation, Critical Thinking

### ·. . Phone tap

Two probes on a telephone cable distribution point allow visitors to tap into phone conversations. By listening into the correct conversation, they will uncover more information about their mission.

SCIENCE LINKS: Technology, Observation

#### Exhibit descriptions continued...



### Code room · · ·

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Visitors explore codes and ciphers used throughout the centuries via eight interactive experiences that encourage cooperative learning. Each code reveals a little clue about the mystery and a picture on the wall has more to it than meets the eye... their mission.

SCIENCE LINKS: Cryptography

### Code computer

Visitors learn some of the key terminology used by spies in this extensive data base of spy words. SCIENCE LINKS: Science/Spy Vocabulary, Technology



### Photo disguise kit

Spies and criminals are the masters of disguise. At this exhibit visitors have a photo taken on screen and use the computer to create various virtual disguises and select the one which best hides their identity. SCIENCE LINKS: Creative Thinking, Problem Solving

## Who's talking?

Visitors enter an unsecure area and need to use a device to apply effects to disguise their voice. An audio spectrum analyser displays the waveforms of the various sounds to show the effect of the distortion. SCIENCE LINKS: Acoustics





#### Exhibit descriptions continued...

#### Laser maze

Visitors are challenged to navigate a room full of laser beams without setting off the alarm. SCIENCE LINKS: Technology, Physics

### Debriefing room

When the visitor has completed the mission, they can enter the Debriefing room. Here they can view a video revealing the plot, the persons of interest involved and discover if they were successful in establishing who stole the CROWN computer. Included in this area is the spy technology corner that reveals some of the technology currently being used by professional spies; and the spy profiler, which looks at some famous spies throughout history. SCIENCE LINKS: Technology





### Educational resources

Top Secret is accompanied by a School and Visitor Guide to assist teachers and family groups visiting the exhibition. The exhibition covers the following areas of science:

- Problem Solving
- Forensics
- Cryptography

Scitech will provide each venue with a sample program to run with visiting schools. Venues are free to use and modify this material to suit the curriculum in their area or the target audience, providing due acknowledgement is made to Scitech as the designer and producer of the exhibition.

### Marketing

Top Secret has been designed specifically for children aged between 5 and 15 years old although the subject material and exhibit content will have broad appeal for both younger and older audiences.

#### Scitech will provide the following marketing materials to help each venue promote the exhibition:

- Exhibition logos
- Examples of advertising and promotional artwork
- Example of a media release

Top Secret will tour to other venues free of any specific sponsorship agreements, enabling host venues to link with a wide range of sponsors for the local market.

### Touring arrangements

Top Secret consists of 21 interactive exhibits with accompanying inbuilt, durable graphic panels that outline instructions for the visitor and relate interesting science facts in everyday terms.

#### Space and height

- Fits an exhibition space of approximately 400 600 square metres (4,300 to 6,500 square feet) in flexible configurations
- Minimum ceiling height requirement for the exhibition is 3 meters (10 feet), although 4 meters (13 feet) is optimal
- Entry and exit points measuring at least 2.7 x 2.7 metres (9 x 9 feet) for installation

#### **Power and air**

- Exhibits are powered by a standard 240v/120v electricity supply and are designed to accept power from the ceiling or the floor
- Some exhibits require 24 hour power to prevent damage to the projectors
- A licensed electrician will need to be supplied by the host venue to assist with the exhibition installation
- The exhibition is completely self-contained.

#### Fees

Negotiations with individual venues will be conducted to determine the appropriate fee structure for the exhibition period.

#### **Training and maintenance**

Scitech will provide the host venue's exhibition and visitor staff with a full briefing on exhibit operation and maintenance, as part of the exhibition installation. The exhibition does require some simple maintenance which needs to be carried out on a daily basis. A full list will be provided in the exhibition manual.

#### Provisions

#### Scitech will provide:

- The exhibition as outlined in the Contract
- Transit insurance
- An exhibition supervisor to coordinate the installation and dismantling of the exhibition
- Replacement parts through normal wear and tear
- Education and marketing material

#### The host venue will provide:

- A team to assist the installation and dismantling of the exhibition
- Replacement exhibit consumables as required
- 24 hour physical and/or electronic security of the exhibition
- Any special requirements (scaffolding, forklifts, trolleys etc.) specified in the Contract

### For more information, please contact:

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Information contained in this guide was correct at the time of printing.

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