

## 3.6.1.1 Social engineering

### Lesson plan and printable activities

#### Materials needed

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1. 3.6.1.1 [Lesson](#) PowerPoint.
2. Role-play [exercise](#).
3. Social engineering [worksheet](#).

#### Starter activity (5 minutes)

##### 1. Slide 2: Activity – Identify the links

Students look at the list on the slide. They should try to identify links between the people. If they can't deduce that they are all social engineers, then they might need a few small clues.

**Differentiation:** If students haven't heard the term 'social engineer' and can't deduce this from the list, then they can try to establish links between the people and explain the links. This will lead on to the next couple of slides.

**Extension:** If students finish early, get them to come up with a meaning for the term 'social engineer'.

2. **Slide 3:** An image of the worksheet which students can complete in the lesson.
3. **Slide 4:** A short video clip explaining what the term 'social engineer' means.
4. **Slide 5:** Discussion and questions leading into the topic.

#### Main activities

1. **Slide 6:** Introduction to the objectives of the lesson.
2. **Slide 7:** Forms of social engineering that students need to know about are listed. There is a breakdown of what they mean in the notes section, with some supporting links.

**Alternatives:** Depending on the ability of the class, the teacher may wish to discuss these with the class, but hopefully they will get an understanding of what they are from the following activities. After slide 13, the teacher may wish to go back over the forms of social engineering to check the students' understanding and clarify the terms.

**Extension:** Further reading to stretch more able students or those with great interest. Links can be found in the notes section.

### 3. Slide 8: Activity – Blagging role play

Use the 'Role-play exercise' sheet and give students a card with their brief on it. Students assume the role of a bank worker and a customer. In pairs, students read their brief and have a conversation using the cues. Scenario: a customer gets a phone call from their bank who want some information verifying due to fraudulent activity on their account. The bank worker is the blagger and is trying to extract as much information as possible.

A debrief after the task would be needed to see how many of the customers gave away their information without realising that they were not really on the phone to the bank.

**Assessment opportunity:** Those who prefer more kinaesthetic styles could expand beyond the question pointers that have been given. Can the students appreciate what a blagger (or pretexting) is? And how unsuspecting a person might be?

**Extension:** There are two articles that support the activity and discuss blagging in more depth.

### 4. Slide 9: Activity – Phishing

Using the link, students can take a test where they have to spot the difference between genuine and phishing emails.

### 5. Slide 10: Activity – Pharming

Watch a short video clip on pharming:

[youtube.com/watch?v=HNBvtebBv4M](https://www.youtube.com/watch?v=HNBvtebBv4M)

### 6. Slide 11: Activity – Shoulder surfing

Students are shown two pictures, either as a class discussion, in pairs or individually, they should identify what the problem is.

**Assessment opportunity:** As students complete the activities and do extra reading or watch supporting videos, they should be identifying how different forms of social engineering can be protected against. This could be assessed on the completion of their worksheet.

## Plenary (5 minutes)

### Slide 12: Activity – 5, 4, 3

This can be done in groups or individually.

Identify:

- 5 people or organisations that may be involved in social engineering
- 4 forms of social engineering
- 3 ways to protect against social engineering.

# Lesson

**3.6 Fundamentals of cyber security**

**3.6.1.1 Social engineering**  
Lesson

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**Starter activity**

**What do the following have in common?**

- Hackers
- Everyday people
- Penetration testers
- Scam artists
- Data brokers
- Governments
- Sales people
- Recruiters
- Spies
- Disgruntled employees

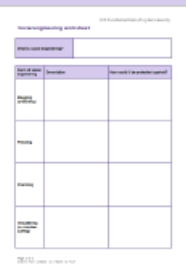
**TIME UP**

**Start**

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**Social engineering worksheet**

Complete this worksheet during the lesson.



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**Starter activity: video**

**What is social engineering?**

[social-engineer.org](http://social-engineer.org)

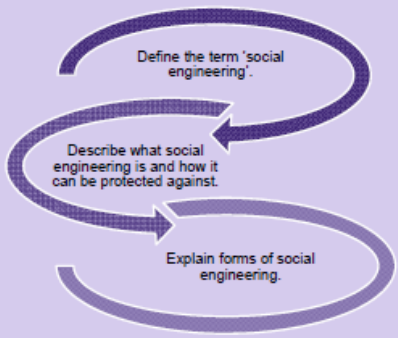
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**Discussion**

- Did you guess correctly?
- What social engineering examples can you think of?
- Can you think of an example of a threat that social engineering might pose?
- In what ways could people or organisations protect themselves from social engineering?

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**Objectives**



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## 3.6 Fundamentals of cyber security

### Forms of social engineering

<b>Blagging</b> (pretexting)	<b>Phishing</b>
<b>Pharming</b>	<b>Shouldering</b> (or shoulder surfing)

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### Blagging role-play activity

Work in pairs.

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### Phishing activity

[sonicwall.com/phishing/](http://sonicwall.com/phishing/)

Use this website and click on 'Start the test'.

Can you identify phishing scams?

What is your phishing IQ?

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### Pharming activity


**What is pharming?**

[youtube.com/watch?v=HNBvtebBv4M](https://www.youtube.com/watch?v=HNBvtebBv4M)

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### Shoulder-surfing activity

Identify the problems in these photographs.



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### Plenary

**5, 4, 3**

Identify:

- 5 people or organisations that may be involved in social engineering
- 4 forms of social engineering
- 3 ways to protect against social engineering.

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## Blagging role-play activity



### Bank Worker

You are calling Mrs Sally Smith, she banks with MoneyBanking. You are a blagger and you are trying to get her to disclose her pin number for her credit-card account. You 'work' for MoneyBanking and your name is Sam Jones.

Ask her some questions using the ones below for inspiration. Make sure you are friendly and reassuring.

You know her credit card number is 1234567890.

- **Q:** Hello, I'm Sam Jones, calling from MoneyBanking. We have noticed some fraudulent activity on your account. Please could you confirm your name?
- **Q:** We have records of your credit card being used abroad. I see that you recently went on holiday? Unfortunately, there are some unusual transactions on the card for several hundred pounds abroad and also through some shopping websites. Could you tell me what recent purchases you have made?
- **Q:** In order to add a protection level on your account, I would like you to confirm your full pin number for your credit card, please could you give me that now?

You might ask further questions that involve gaining information about Mrs Smith's bank account or asking her to transfer you money.



### Banking Customer

Your name is Mrs Sally Smith and you bank with MoneyBanking. You go on holiday quite a lot and have used your credit card in different countries. Your last holiday was two weeks ago. At the airport, you bought perfume and designer sunglasses. During your holiday, you used your credit card to pay for meals in restaurants. Back in the UK, you regularly do online shopping.

You have one current account and one credit card with the bank.

- **Account no:** 9876540
- **Sort code:** 556677
- **Online banking password:** qwerty (*This is needed to access your account online.*)
- **Credit card no:** 1234567890
- **Three digit security code:** 123 (*This is the number on the back of the card. It is needed for buying things over the phone and online shopping.*)
- **Pin no:** 3333 (*This is the number you need when using your card in a shop.*)

Your bank will contact you due to some fraudulent activity on your account. Give them information you see fit in order to resolve the dispute. You may want to confirm that they are calling from MoneyBanking.

## Social engineering worksheet

<b>What is social engineering?</b>	
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Form of social engineering	Description	How could it be protected against?
<b>Blagging (pretexting)</b>		
<b>Phishing</b>		
<b>Pharming</b>		
<b>Shouldering (or shoulder surfing)</b>		