**Keeping organisational data secure**

This planning document is intended to support teachers who are delivering the NPA/PDA Data Science or for students who are learning independently. It also aligns with the Data Skills for Work framework.

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# Version Control

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| --- | --- | --- | --- |
| Version number | Purpose/Change | By | Date |
| 1.0 | Published by effini | Emma Nylk | 11 July 2022 |
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# Lesson Description

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| --- | --- |
| **Lesson Overview** | How organisations keep data secure.  What data rights and responsibilities individuals and organisations have under the law. |
| **Topic** | Data Security |
| **Book Chapter(s)** | Data Security |

|  |  |
| --- | --- |
| **NPA level** | 4, 5, 6 |
| **PDA level** | 7, 8 |
| **Data skills for work level** | Data management, Core, Data leadership |

# Lesson Contents

This lesson consists of:

* A lesson plan (this document)
* A PowerPoint/PDF presentation, ‘Keeping organisational data secure’
* Question worksheet (for learners) on ‘Keeping organisational data secure’ in Excel/PDF
* Answers worksheet (for teachers) on ‘Keeping organisational data secure’ in Excel/PDF

# Learning Intentions

We will be looking at how organisations keep data secure, specifically,

* What happens if organisations don’t keep data secure
* What is GDPR
* What are your data rights under the law
* How encryption and backups keep data safe

# Success Criteria

I can *explain/describe/state* how GDPR supports organisations to manage and secure data.

I can *explain/describe/state* the rights I have as a data subject.

I can *explain/describe/state* the responsibilities an organisation has a data controller.

I can *explain/describe/state* how encryption can be used to manage and secure data.

Learners need to explain/describe/state the success criteria based on the level they are studying at. Please review the lesson requirements to determine the appropriate level for the learners.

# Knowledge Prerequisites

Learners should know:

* what data is
* data can be transformed into valuable information
* data can be used to solve problems and find answers to questions

# Lesson Requirements

|  |  |  |  |
| --- | --- | --- | --- |
|  | **PDA** | **NPA** | **Data Skills for work** |
| **Qualification** | Yes | Yes | Yes |
| **Outcome ID(s)** | WD7.2e, WD8.1h | DC4.2d, DC4.1e,  DC5.1e, DC5.2d, DS5.2d,  DC6.1e, DC6.2d | DM2.1, DM2.2, DM2.3,  C1.4, C2.1, C2.2,  DL2.2 |
| **Outcome description(s)** | WD7.2e Legal and ethical considerations  WD8.1h Data management including security, | DC4.2d - Describe simple methods of managing and securing data.  DC4.1e - State the rights and responsibilities of data subjects and data owners  DC5.1e - Describe the rights and responsibilities of data subjects and data owners.  DC5.2d - Explain methods of managing and securing data  DS5.2d - Describe methods of securing and managing data  DC6.1e - Explain the rights and responsibilities of data subjects and data owners  DC6.2d - Explain methods of data management and data security | DM2.1 - Data protection regulation,  DM2.2 - Keeping data secure  DM2.3 - Data sharing and publication  C1.4 – Use and misuse of data by individuals, organisations and society  C2.1 – Vocabulary used in data science and analytics  C2.2 – Different data roles in organisations  DL2.2 – Data roles and skills |
| **Level** | 7, 8 | 4, 5, 6 | Data management, Core, Data leadership |
| **Software language** | N/A | N/A | N/A |
| **Required equipment /software for student** | Lesson: PowerPoint/PDF,  Worksheet: Excel/PDF | Lesson: PowerPoint/PDF,  Worksheet: Excel/PDF | Lesson: PowerPoint/PDF,  Worksheet: Excel/PDF |

# Task-types

In the worksheet for this lesson, there are up to 6 task-types to that become increasingly challenging to support the students learning. Based on the student’s previous knowledge it is possible to select the task-types that are relevant to their stage.

|  |  |
| --- | --- |
| **Task-type** | **Description** |
| **1. Recall** | To be able to recognise definitions or procedures. |
| **2. Define** | To be able to define definitions or procedures. |
| **3. Rephrase** | To be able to use their own words to describe definitions or procedures. |
| **4. Apply** | To be able to apply definitions or procedures to problem-solving activities. |
| **5. Create** | To be able to apply definitions or procedures and create their own solutions to a defined problem. |
| **6. Active** | Using knowledge from the lesson which they apply to scenarios they have researched/designed themselves. |

# Worksheet

The worksheet associated with this lesson is available either in Excel or as a PDF that can be printed. The answer worksheet is available in both formats too.

|  |  |  |  |
| --- | --- | --- | --- |
| **Worksheet section ID** | **Description** | **Task-type** | **Number of questions** |
| 1.1 | Data breaches | Recall | 2 |
| 1.2 | Data breaches | Apply | 4 |
| 2.1 | GDPR | Recall | 1 |
| 2.2 | GDPR | Rephase | 3 |
| 2.3 | GDPR | Active | 1 |
| 3.1 | Technology to protect data | Recall | 1 |
| 3.2 | Technology to protect data | Rephase | 1 |
| 3.3 | Technology to protect data | Active | 1 |
| **Total** | | | **14** |

# How you can use this lesson

This lesson has been created by effini in partnership with Data Education in Schools and Skills Development Scotland.

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A picture containing text, clipart

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# Alternative format

**If you require this document in an alternative format, such as large print or a coloured background, please contact**

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