**Caring for data**

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.

Contents

[Version Control 1](#_Toc116886216)

[Lesson Description 2](#_Toc116886217)

[Lesson Contents 2](#_Toc116886218)

[Learning Intentions 3](#_Toc116886219)

[Success Criteria 3](#_Toc116886220)

[Knowledge Prerequisites 3](#_Toc116886221)

[Lesson Requirements 4](#_Toc116886222)

[Task-types 5](#_Toc116886223)

[Worksheet 6](#_Toc116886224)

[How you can use this lesson 7](#_Toc116886225)

[Alternative format 7](#_Toc116886226)

# Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| Version number | Purpose/Change | By | Date |
| 1.0 | Published by effini | Emma Nylk | 25 Oct 2022 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Lesson Description

|  |  |
| --- | --- |
| **Lesson Overview** | What are the different data types that need to be cared for  How to create a data dictionary |
| **Topic** | Quality and management |
| **Book Chapter(s)** | Quality and management |

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

# Lesson Contents

This lesson consists of:

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

# Learning Intentions

We will be looking at **caring for data**, specifically

* Why you should care for your data
* What are the different data types that need cared for
* How to create a data dictionary

# Success Criteria

I can *explain* that data needs to be cared for.

I can *describe* the different type of datasets.

I can *create* a data dictionary for a given dataset.

# 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)** | WD7.1d, CD7.1c, CD7.1f  WD8.1e, WD8.1h, WD8.2f, CD8.1f | DC5.2d, DS5.2d  DC6.2d, DS6.2c | C2.1, A1.2, DL1.2 |
| **Outcome description(s)** | WD7.1d – Data quality including bias  CD7.1c – Types of data  CD7.1f – Data quality  WD8.1e – Data quality  WD8.1h – Data management  WD8.2f – Data quality including data bias  CD8.1f -  Data quality and data bias | DC5.2d - Explain methods of managing and securing data,  DS5.2d - Describe methods of securing and managing data,  DC6.2d - Explain methods of data management and data security,  DS6.2c - Explain data management and data security techniques | C2.1 – Vocabulary used in data science and analytics  A1.2 – Data quality  DL1.2 – Data risks and challenges |
| **Level** | 7, 8 | 5, 6 | Data leadership, Core, Analysis |
| **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 | Caring for datasets | Recall | 1 |
| 1.2 | Caring for datasets | Rephrase | 2 |
| 1.3 | Caring for datasets | Apply | 4 |
| 1.4 | Caring for datasets | Active | 2 |
| 2.1 | Create a data dictionary | Recall | 2 |
| 2.2 | Create a data dictionary | Apply | 5 |
| 2.3 | Create a data dictionary | Active | 1 |
| **Total** | | | **17** |

# How you can use this lesson

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

© 2022. This work is licensed under a [*CC BY-NC-SA 4.0 license*](https://creativecommons.org/licenses/by-nc/4.0/legalcode)*.*

A picture containing text, clipart

Description automatically generated

You are free to:

* **Share** – copy and redistribute the material in any medium or format
* **Adapt** – remix, transform and build upon the material

Under the following terms:

* **Attribution** — You must give [appropriate credit](https://creativecommons.org/licenses/by-nc/4.0/), provide a link to the license, and [indicate if changes were made](https://creativecommons.org/licenses/by-nc/4.0/). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
* **NonCommercial** — You may not use the material for [commercial purposes](https://creativecommons.org/licenses/by-nc/4.0/).
* **ShareAlike** — If you remix, transform, or build upon the material, you must distribute your contributions under the [same license](https://creativecommons.org/licenses/by-nc-sa/4.0/) as the original.

# Alternative format

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

**hello@effini.com**

**or**

**4th Floor, The Bayes Centre**

**47 Potterrow**

**Edinburgh**

**EH8 9BT**