

EPISODES
Summary and Setup
Software Setup
1. Using Markdown
See all in one page

Summary and Setup

This is the start of the index.md file, the following content resides in that file

Some mention of the carpentries should go in the beginning This is a new lesson built with The Carpentries Workbench.

This is where a short description of the lesson that you are developing should go.

Pre-requisite

This is where the Pre-requisites of your lesson goes

Lesson Objectives

This is where the overall lesson objectives of your lesson should go.

This is the end of the index.md file

This is the beginning of the setup.md file. You can find this file in the learners folder. learners/setup.md

Data Sets

If you want your learners to download any data sets that will be used during the lesson, you will put that in the setup.md file.

Software Setup

Some info for Software setup. Look at the source code for this page to see how it was handled using pandoc's fenced divs.

DETAILS

Setup for different systems can be presented in dropdown menus via a `solution` tag. They will join to this discussion block, so you can give a general overview of the software used in this lesson here and fill out the individual operating systems (and potentially add more, e.g. online setup) in the solutions blocks.

Windows
MacOS
Linux

Next: Using Markdown →

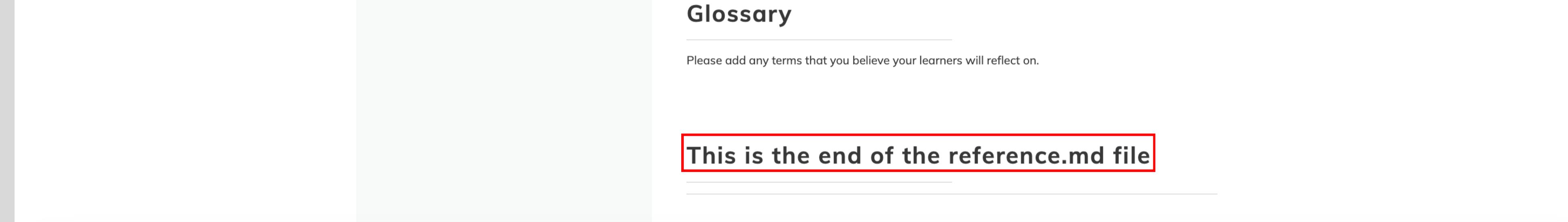
The first page of your lesson consists of the index and setup files. The structure goes as follows:

Index is displayed first then the setup is displayed directly afterwards.

index.md - You can find this file in the root directory of your lesson, its in the main folder that holds all of the files. In this file, you will put a brief description/overview of your lesson as well as a reference to the Carpentries. Afterwards you can include any **PRE-Requisites** that you require of your learner as well as **OVERALL Lesson Objectives** that are covered throughout the entire lesson.

setup.md - The setup.md file is located in the learners folder. Its relative path is learners/setup.md. You should include any data sets that you require your learners to download or use throughout the lesson as well as any software setups that they might need in order to run your lesson.

You can visit the glossary and references by clicking on the glossary tab



Lesson Title Key Points Glossary Learner Profiles More ▾

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Reference

Last updated on 2023-08-10 | Edit this page ↗

Expand All Solutions +

This is the start of the reference.md file

You can find this file under learners/reference.md

Any references that you want to include or credit in your lesson should go here. As well as any terms you want to add into a glossary. That will be included in the glossary section.

Glossary

Please add any terms that you believe your learners will reflect on.

This is the end of the reference.md file

Episode Example

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 Introduction
 Figures
 Math
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Using Markdown

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Expand All Solutions +

At the beginning of each episode, you define

lesson objectives and questions. You do this using pandoc's fenced divs. The following is a code snippet on how to create this overview for each episode's objectives and questions.

```
1 ---  
2 title: "Using Markdown"  
3 teaching: 10  
4 exercises: 2  
5 ---  
6 .....  
7 .....  
8 .....  
9 - How do you write a lesson using Markdown and `sandpaper`?  
10 .....  
11 .....  
12 .....  
13 .....  
14 - Explain how to use markdown with The Carpentries Workbench  
15 - Demonstrate how to include pieces of code, figures, and nested challenge blocks  
16 .....  
17 .....  
18 .....  
19 .....
```

Introduction

This is a lesson created via The Carpentries Workbench. It is written in [Pandoc-flavored Markdown](#) for static files and [R Markdown](#) for dynamic files that can render code into output. Please refer to the [Introduction to The Carpentries Workbench](#) for full documentation.

What you need to know is that there are three sections required for a valid Carpentries lesson:

1. **questions** are displayed at the beginning of the episode to prime the learner for the content.
2. **objectives** are the learning objectives for an episode displayed with the questions.
3. **keypoints** are displayed at the end of the episode to reinforce the objectives.

CHALLENGE 1: CAN YOU DO IT?

What is the output of this command?

R < >

```
paste("This", "new", "lesson", "looks", "good")
```

Output

CHALLENGE 2: HOW DO YOU NEST SOLUTIONS WITHIN CHALLENGE BLOCKS?

Show me the solution

You can embed links using regular markdown or Jekyll syntax.

Todo so, you use the following syntax:

[Text](link)

Example:

[Pandoc-flavored Markdown](link)

This is a callout block. Callout blocks come in many forms. The following link is a list of all callout blocks supported by Carpentries: <https://carpentries.github.io/sandpaper-docs/component-guide.html>

To create a callout block you use the fenced-div method. You need an opening "```" and a closing "```". Of course you can have more but you need at least three colons to signify a callout block.

Callout Blocks are useful for highlighting points, creating exercise/challenge problems, and other cases you where you want to highlight something.

```
45 :::: challenge  
46 ## Challenge 1: Can you do it?  
47  
48 What is the output of this command?  
49  
50 ...  
51 : paste("This", "new", "lesson", "looks", "good")  
52 ...  
53  
54 :::: solution  
55 ## Output  
56 ...  
57 ...  
58 [!]"This new lesson looks good"  
59 ...  
60 ...  
61  
62 ## Challenge 2: how do you nest solutions within challenge blocks?  
63  
64 :::: solution  
65 You can add a line with at least three colons and a `solution` tag.  
66 ...  
67 ...
```

Math

One of our episodes contains \LaTeX equations when describing how to create dynamic reports with `{knitr}`, so we now use `mathjax` to describe this:

```
$\alpha = \frac{1}{(1 - \beta)^2}$ becomes $\alpha = \frac{1}{(1 - \beta)^2}$
```

Cool, right?

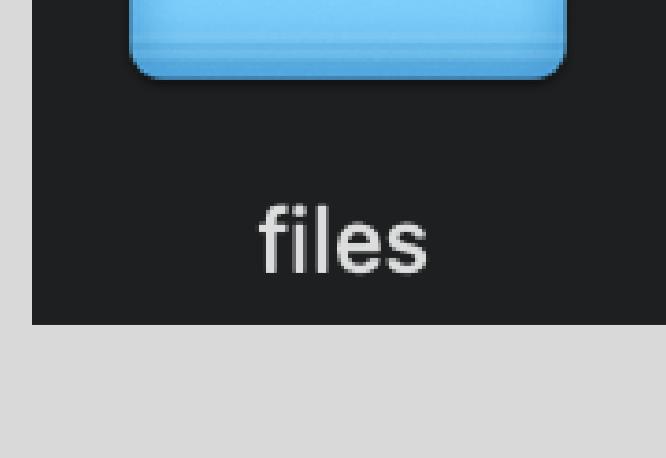
KEYPOINTS

- Use `.md` files for episodes when you want static content
- Use `.Rmd` files for episodes when you need to generate output
- Run `sandpaper::check_lesson()` to identify any issues with your lesson
- Run `sandpaper::build_lesson()` to preview your lesson locally

At the end of each episode, you want to use the **KEYPOINTS** callout block to re-iterate the main points that were covered in the episode. The code describing this shown below. It follows the same syntax as **fenced-divs**.

```
99 :::: keypoints  
100 - Use .md files for episodes when you want static content  
101 - Use .Rmd files for episodes when you need to generate output  
102 - Run `sandpaper::check_lesson()` to identify any issues with your  
103 lesson  
104 - Run `sandpaper::build_lesson()` to preview your lesson locally  
105 ...  
106 ...  
107 ...  
108 ...  
109 ...  
110 ...
```

Inside the episodes folder, you will see three folders alongside your episodes: data, fig, and files. The following are descriptions of what should go inside of them and how to utilize them.



The fig folder is used to store any images, svgs, or other figures that you will be using throughout your lesson.

The syntax to use figures is the following:

![Caption for the figure](fig/...)

![Counting words in a text](fig/count-words.png)



The data folder is used to store any data sets that you might want a learner to download/use. This can be referenced in your setup.



The files folder is used to store any files that you might want a learner to download/use. This can be referenced in your setup.