Lesson Title

Content from [introduction](#)

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OVERVIEW

Questions

- How do you write a lesson using R Markdown and [sandpaper](#)?

Objectives

- Explain how to use markdown with the new lesson template

- Demonstrate how to include pieces of code, figures, and nested challenge blocks

Introduction

This is a lesson created via The Carpentries Workbench. It is written in [Pandoc-flavored Markdown](#) for static files (with extension `.md`) and [R Markdown](#) for dynamic files that can render code into output (with extension `.Rmd`). 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 template:

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 ‹ ›

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

Solution

OUTPUT ‹ ›

```
[1] "This new lesson looks good"
```

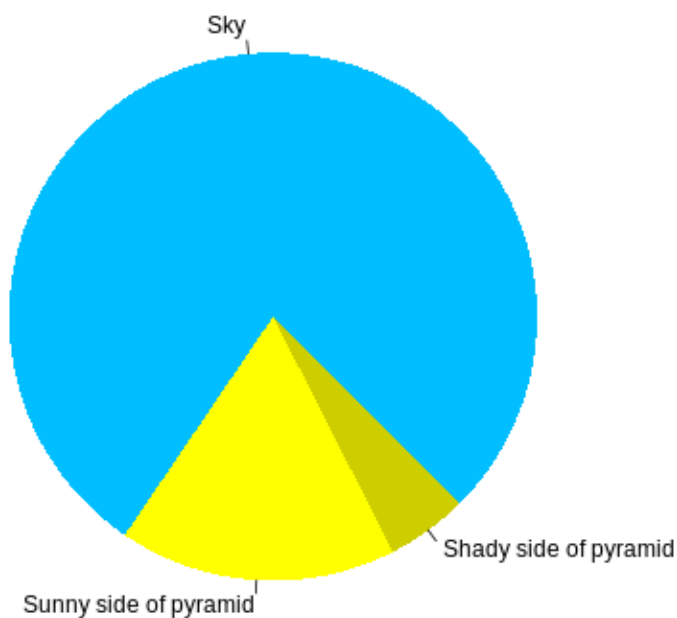## CHALLENGE 2: HOW DO YOU NEST SOLUTIONS WITHIN CHALLENGE BLOCKS?

Solution

You can add a line with at least three colons and a `solution` tag.

Figures

You can include figures generated from R Markdown:

```r
pie(
  c(Sky = 78, "Sunny side of pyramid" = 17, "Shady side of pyramid" = 5),
  init.angle = 315,
  col = c("deepskyblue", "yellow", "yellow3"),
  border = FALSE
)
```


Sun arise each and every morning

Or you can use pandoc markdown for static figures with the following syntax:

```
![optional caption that appears below the figure](figure url){alt='alt text
for accessibility purposes'}
```

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:

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

Cool, right?

KEY POINTS

- 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