

# Install & Use Packages in R

## Install a Package

In this tutorial, we will walk you through installing the `rmarkdown`, `knitr` and `ggplot2` packages for R.

## Learning Objectives

At the end of this activity, you will:

- Know how to install an R package using `Rstudio`.
- Be able to explain what a package is in R.

## What is a Package?

A package, in R is a bundle of pre-built functionality. Think of it like a toolbox. Except for the tools, may do things like calculate a mathematical function e.g. `sum` or create a plot.

## Install a Package

In R we install packages using the `install.packages("packageNameHere")` function. Let's get `rmarkdown` and `knitr` installed so we can use them in our exercises. In the R console within `Rstudio`, use the code below to install packages individually.

```
# install knitr
install.packages("knitr")

# install the rmarkdown package
install.packages("rmarkdown")

# install ggplot for plotting
install.packages("ggplot2")
```

**Data Tip** You can install as many packages as you one in one string of code as follows `install.packages(c("name-one", "name-two"))` {`: .notice` }

## Call Package in R

Once the package is installed, to use it, you call the package at the top of your script like this:

```
library(knitr)
library(rmarkdown)
library(ggplot2)
```

Note that you don't need to use quotes around the package name when you call it using the `library()` function. But you do need the quotes when you install a

In our case, the `knitr` and `rmarkdown` packages load buttons and options within the `Rstudio` environment that we can use. Thus we won't have to call these two packages in our code in this lesson. However, when we use `ggplot2` to plot, we will have to call it. We will see how calling a package works in a later set of lessons.