

Additional Reading Material for Introduction to PhET Simulations

To open **PhET simulations** that are in **Java** format, you need to install **Java** on your system.

For the installation Internet connectivity is required.

Installation of Java on Windows 10 OS

To install Java in **Windows 10 OS** use the given link

jdk-15.0.2_windows-x64_bin.exe

Click on the given link to download **Java 15.0.2**. A window prompts you to accept the license agreement.

Click on the check box **I reviewed and accept the Oracle Technology Network License Agreement for Oracle Java SE**.

The **Download** button becomes active. Click on the **Download** button.

A window prompting to save the file appears. Click on the **Save File** button to download **Java**.

The file downloads to the **Downloads** folder.

Right-click on the file and select **Run as Administrator**.

Click on the **Yes** button in the confirmation window. The installation of **Java** starts.

Click on the **Next** button in the window. Then click on the **OK** button to complete the installation.

Procedure to check if Java is installed on your Windows 10 system

Open the **Command Prompt** by typing **cmd** in the search bar next to the **Start menu**.

At the command prompt type, **java -version** and press **Enter** key on the keyboard.

It will show the version number of Java already installed on your system

Installation of Java on Linux OS

Open the terminal by pressing **Ctrl, Alt** and **T** keys simultaneously.

At the prompt type, **sudo apt-get update** and press **Enter** key.

Type the **system password** when prompted and press **Enter** key.

Wait till the package index gets updated.

At the prompt type **sudo apt-get install default-jdk** and press **Enter** key.

Type **Y** when prompted and press **Enter** key to continue. Allow the installation to complete.

To check if the installation is successful or not.

At the **command prompt** type, **java -version** and press **Enter** key. It will show the version number of **Java** installed on your system.

Installation of Java on Mac OS

Open any web browser and go to **Java.com**

Then click on the **Java Download** button.

Download Java for Mac OS X page opens. Read the license page. Click on **Agree and Start Free Download** button.

JRE.dmg file downloads to the **Downloads** folder.

From the file browser, double-click the **.dmg** file to launch it.

A **Finder** window appears that contains an icon of an open box and the name of the **.app** file.

Double-click the **Java 10.app** icon to start the installation application.

The installation application displays the **Welcome** window. Click the **Open** button.

Give the system permission if prompted. Click on the **Install** button in the **Java** installation window.

The software is installed and a confirmation window is displayed. Click on the Close button.

To check if the installation is successful or not.

To open a **terminal** in **Mac**, in the **Finder**, open the **/Applications/Utilities** folder, then double-click **Terminal**.

At the command prompt type, **java -version** and press **Enter** on your keyboard. It will show the version number of **Java** already installed on your system.