[[4.2]](https://live.onefile.co.uk/standards/form.aspx?StandardID=63982&UnitID=CNMSB_04#Week%203) Describe how the Document Object Model works

[[4.8]](https://live.onefile.co.uk/standards/form.aspx?StandardID=63982&UnitID=CNMSB_04#Week%203) Describe what third-party frameworks and libraries are

4.2 Describe how the Document Object Model works.

The DOM is an application programming interface, that defines logical layout of content and how it is accessed and manipulated. Everything present on an HTML webpage can be edited using DOM. Using DOM, programmers can build, construct, add, modify, delete, or navigate elements or contents.

Earlier JavaScript & DOM were intertwined, but as the language evolved, both were separated as an individual entity. DOM is not a programming language but just a way to access/modify data. Without DOM, JavaScript won’t have any model, layout of webpages, XML, or HTML documents. Probably everything in a document, head, tables, header, footer, text, table, etc. is considered within DOM.

4.8 Describe what third-party frameworks and libraries are.

Frameworks and libraries are blocks of code developed by third parties that help solve common problems in a particular programming language. Both libraries and frameworks are reusable code written by someone else. Their purpose is to help you solve common problems in easier ways.

A Library allows you to pick and choose sections or snippets of code to use so you don’t have to recreate them.

A framework is more like a set of blueprints and a few limited choices of design.

When you use a library, you are in charge of the flow of the application. You are choosing when and where to call the library. When you use a framework, the framework is in charge of the flow. It provides some places for you to plug in your code, but it calls the code you plugged in as needed.

Frameworks and libraries are both code written by someone else that helps you perform some common tasks in a less verbose way.

A framework inverts the control of the program. It tells the developer what they need. A library doesn’t. The programmer calls the library where and when *they* need it.