

Cambridge **TECHNICALS LEVEL 3**

**IT**

Cambridge  
**TECHNICALS**  
**2016**

MAPPING GUIDE

Unit 21 Web Design and Prototyping

Version 1

# INTRODUCTION

Prodigy are delighted to work with OCR, a progressive Awarding Organisation, who share the ambition of providing high-quality qualifications, learning solutions that are industry-led and reliable and valid assessment. The Cambridge Technicals in IT qualifications provide 'future-ready' skills for a learner to further their ambitions, whether that is in terms of further academic study, enter an apprenticeship or as a springboard to gaining employment.

Prodigy Learning (Prodigy) is an award-winning EdTech business providing digital skills certifications and learning solutions for a range of technologies including Adobe, Autodesk and Microsoft. Established in 2000, Prodigy now have offices in Dublin, London and Sydney. Having worked closely with Microsoft since 2000, Prodigy is a Microsoft Authorised Education Gold Partner and a MS Global Training Partner supporting academic institutions utilise Microsoft Imagine Academy, Microsoft certifications and other Microsoft Education solutions.

Historically, the UK has thrived on a rich research and technology base and has been at the forefront of global technology innovation. Enthusing young learners about following exciting careers in science, technology, engineering and mathematics (STEM) subjects is fundamental to maintaining this success. However, currently the UK has a widely acknowledged skills gap in the pipeline of talent studying computing-related disciplines. Therefore, providing high quality, engaging and relevant qualifications that equip learners with current technical knowledge and skills is essential to encourage more young people into the computing discipline, and moreover to ensure they progress to jobs in the sector.

# MAPPED TO MTA HTML APPLICATION 98-375

## 2. Build the Usurer Interface by Using HTML5

	2. Build the User Interface by Using HTML5 (25-30%)	2.1. Choose and configure HTML5 tags to display text content.	2.2. Choose and configure HTML5 tags to display graphics. This objective may include but is not limited to:	2.2.1 when, why, and how to use Canvas;	2.2.2 when, why, and how to use scalable vector graphics (SVG)	2.3. Choose and configure HTML5 tags to play media. This objective may include but is not limited to: video and audio tags	2.4. Choose and configure HTML5 tags to organize content and forms. This objective may include but is not limited to:	2.4.1 tables, lists, sections	2.4.2 semantic HTML	2.5. Choose and configure HTML5 tags for input and validation.
2.1.4 Analyse needs - user interactivity required (e.g. submission of data, maps)								X		X
2.1.5 Analyse needs - responsive design requirements								X		X
2.1.6 Produce a plan - Interactive elements to meet the client's needs								X		X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

	2. Build the User Interface by Using HTML5 (25-30%)	2.1. Choose and configure HTML5 tags to display text content.	2.2. Choose and configure HTML5 tags to display graphics. This objective may include but is not limited to:	2.2.1 when, why, and how to use Canvas;	2.2.2 when, why, and how to use scalable vector graphics (SVG)	2.3. Choose and configure HTML5 tags to play media. This objective may include but is not limited to: video and audio tags	2.4. Choose and configure HTML5 tags to organize content and forms. This objective may include but is not limited to:	2.4.1 tables, lists, sections	2.4.2 semantic HTML	2.5. Choose and configure HTML5 tags for input and validation.
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X	X	X	X
3.3.2 Testing to include: functionality: embedded components	X	X	X	X	X	X	X	X	X	X

## 3. Format the User Interface by Using CSS

	3.1.1 separating presentation from content – create content with HTML and style content with CSS	3.1.2 managing content flow – inline vs. block flows	3.1.3 managing positioning of individual elements – float vs. absolute positioning	3.1.4 managing content overflow – scrolling, visible, and hidden	3.1.5 basic CSS styling	3.2.1 using flexible box and grid layouts to establish content alignment, direction, and orientation	3.2.2 proportional scaling and use of “free scale” for elements within a flexible box or grid	3.2.3 ordering and arranging content	3.2.4 concepts for using flex box for simple layouts and grid for complex layouts	3.2.5 grid content properties for rows and columns; using application templates
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

	3.1.1 separating presentation from content – create content with HTML and style content with CSS	3.1.2 managing content flow - inline vs. block flows	3.1.3 managing positioning of individual elements – float vs. absolute positioning	3.1.4 managing content overflow – scrolling, visible, and hidden	3.1.5 basic CSS styling	3.2.1 using flexible box and grid layouts to establish content alignment, direction, and orientation	3.2.2 proportional scaling and use of “free scale” for elements within a flexible box or grid	3.2.3 ordering and arranging content	3.2.4 concepts for using flex box for simple layouts and grid for complex layouts	3.2.5 grid content properties for rows and columns; using application templates
1.1.6 Components of web design - designing for different browsers and devices: responsive design for mobile/ tablet technology	X	X	X	X	X	X	X	X	X	X
1.1.7 Components of web design - designing for different browsers and devices: how browser rendering can affect the layout of a webpage	X	X	X	X	X	X	X	X	X	X
1.1.8 Components of web design - designing for different browsers and devices: an understanding of browser rendering engines as a key to performance	X	X	X	X	X	X	X	X	X	X
1.1.9 Components of web design - designing for different browsers and devices: importance of design that takes this into account, what can happen when it is not considered	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

	3.1.1 separating presentation from content – create content with HTML and style content with CSS	3.1.2 managing content flow - inline vs. block flows	3.1.3 managing positioning of individual elements – float vs. absolute positioning	3.1.4 managing content overflow – scrolling, visible, and hidden	3.1.5 basic CSS styling	3.2.1 using flexible box and grid layouts to establish content alignment, direction, and orientation	3.2.2 proportional scaling and use of “free scale” for elements within a flexible box or grid	3.2.3 ordering and arranging content	3.2.4 concepts for using flex box for simple layouts and grid for complex layouts	3.2.5 grid content properties for rows and columns; using application templates
2.1.3 Analyse needs - content	X	X	X	X	X	X	X	X	X	X
2.1.4 Analyse needs - user interactivity required (e.g. submission of data, maps)	X	X	X	X	X	X	X	X	X	X
2.2.1 Produce a plan - site map	X	X	X	X	X	X	X	X	X	X
2.2.2 Produce a plan - navigation bar	X	X	X	X	X	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X	X	X
2.2.4 Produce a plan - design (e.g. font, colour)	X	X	X	X	X	X	X	X	X	X
2.2.5 Produce a plan - Interactive elements to meet the client’s needs	X	X	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

	3.1.1 separating presentation from content – create content with HTML and style content with CSS	3.1.2 managing content flow - inline vs. block flows	3.1.3 managing positioning of individual elements – float vs. absolute positioning	3.1.4 managing content overflow – scrolling, visible, and hidden	3.1.5 basic CSS styling	3.2.1 using flexible box and grid layouts to establish content alignment, direction, and orientation	3.2.2 proportional scaling and use of “free scale” for elements within a flexible box or grid	3.2.3 ordering and arranging content	3.2.4 concepts for using flex box for simple layouts and grid for complex layouts	3.2.5 grid content properties for rows and columns; using application templates
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X	X	X	X
3.3.2 Testing to include: functionality: embedded components	X	X	X	X	X	X	X	X	X	X

	3.3.1 regions and using regions to flow text content between multiple <div> sections – content source, content container, dynamic flow, flow-into, flow-from, msRegionUpdate, msRegionOverflow, msGetRegionContent()	3.3.2 columns and hyphenation and using these CSS settings to optimize the readability of text; using “positioned floats” to create text flow around a floating object	3.4.1 graphics effects -rounded corners, shadows, transparency, background gradients, typography, and Web Open Font Format	3.4.2 2D and 3D transformations – translate, scale, rotate, skew, and 3D perspective transitions and animations	3.4.3 SVG filter effects; Canvas
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

	3.3.1 regions and using regions to flow text content between multiple <div> sections – content source, content container, dynamic flow, flow-into, flow-from, msRegionUpdate, msRegionOverflow, msGetRegionContent()	3.3.2 columns and hyphenation and using these CSS settings to optimize the readability of text; using “positioned floats” to create text flow around a floating object	3.4.1 graphics effects -rounded corners, shadows, transparency, background gradients, typography, and Web Open Font Format	3.4.2 2D and 3D transformations – translate, scale, rotate, skew, and 3D perspective transitions and animations	3.4.3 SVG filter effects; Canvas
1.1.6 Components of web design - designing for different browsers and devices: responsive design for mobile/ tablet technology	X	X	X	X	X
1.1.7 Components of web design - designing for different browsers and devices: how browser rendering can affect the layout of a webpage	X	X	X	X	X
1.1.8 Components of web design - designing for different browsers and devices: an understanding of browser rendering engines as a key to performance	X	X	X	X	X
1.1.9 Components of web design - designing for different browsers and devices: importance of design that takes this into account, what can happen when it is not considered	X	X	X	X	X
2.1.3 Analyse needs - content	X	X	X	X	X
2.1.4 Analyse needs - user interactivity required (e.g. submission of data, maps)	X	X	X	X	X
2.2.1 Produce a plan - site map	X	X	X	X	X
2.2.2 Produce a plan - navigation bar	X	X	X	X	X



# MAPPED TO MTA HTML APPLICATION 98-375

	3.3.1 regions and using regions to flow text content between multiple <div> sections – content source, content container, dynamic flow, flow-into, flow-from, msRegionUpdate, msRegionOverflow, msGetRegionContent()	3.3.2 columns and hyphenation and using these CSS settings to optimize the readability of text; using “positioned floats” to create text flow around a floating object	3.4.1 graphics effects -rounded corners, shadows, transparency, background gradients, typography, and Web Open Font Format	3.4.2 2D and 3D transformations – translate, scale, rotate, skew, and 3D perspective transitions and animations	3.4.3 SVG filter effects; Canvas
2.2.3 Produce a plan - page structure	X	X	X	X	X
2.2.4 Produce a plan - design (e.g. font, colour)	X	X	X	X	X
2.12.5 Produce a plan - Interactive elements to meet the client’s needs	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X
3.3.2 Testing to include: functionality: embedded components	X	X	X	X	X

# MAPPED TO MTA HTML APPLICATION 98-375

## 4. Code by Using JavaScript

	4.1.1 creating and using functions	4.1.2 using Windows Library for JavaScript, jQuery, and other third-party libraries	4.2.1 locating/ accessing elements	4.2.2 listening and responding to events	4.2.3 showing and hiding elements	4.2.4 updating the content of elements; adding elements	4.3.1 using animation; manipulating the canvas	4.3.2 working with images, shapes, and other graphics
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X
3.3.3 Testing to include: functionality: programming language (e.g. JavaScript, Flash)	X	X	X	X	X	X	X	X
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X
3.3.3 Testing to include: functionality: programming language (e.g. JavaScript, Flash)	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

## 1. 1.0 Understand the Fundamentals of HTML

	1.1.1 script	1.1.3 no-script	1.1.3 style	1.1.4 meta tags, including coding, keywords, viewport and translate	1.2.1 DOCTYPE declaration	1.2.2 HTML	1.2.3 head	1.2.4 body	1.2.5 proper syntax	1.2.6 Including closing tags and commonly used symbols	1.2.7 comments
1.1.3 Components of web design - the use of hyperlinks to join webpages	X	X	X	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X	X
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

## 2.0 Understand CSS Fundamentals

	2.1.1 When to use each	2.1.2 Precedence when using a combination of inline styles and style sheets	2.2.1 Valid syntax for the CSS rule set	2.2.2 selectors including class i.e. elements and pseudo-class	2.3.1 Reusing rules and rule sets	2.3.2 Commenting	2.2.3 Testing on multiple browsers	2.2.4 web safe fonts
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X	X	X	X
2.1.3 Analyse needs - content	X	X	X	X	X	X	X	X
2.1.4 Analyse needs - user interactivity required (e.g. submission of data, maps)	X	X	X	X	X	X	X	X
2.1.5 Analyse needs - responsive design requirements	X	X	X	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X
2.2.4 Produce a plan - design (e.g. font, colour)	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X	X	X	X

## 3.0 Structure Documents using HTML

	3.1.1 Table tags	3.1.2 h1-h6	3.1.3 p	3.1.4 br	3.1.5 hr	3.1.6 div	3.1.7 span	3.1.8 ul	3.1.9 ol	3.1.10 li
1.1.3 Components of web design - the use of hyperlinks to join webpages	X	X	X	X	X	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

	3.1.1 Table tags	3.1.2 h1-h6	3.1.3 p	3.1.4 br	3.1.5 hr	3.1.6 div	3.1.7 span	3.1.8 ul	3.1.9 ol	3.1.10 li
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X

	3.2.1 Semantic tags	3.2.2 header	3.2.3 section	3.2.4 article	3.2.5 aside	3.2.6 footer	3.2.7 details	3.2.8 summary	3.2.9 figure	3.2.10 caption	3.3.1 Image links	3.3.2 target	3.3.3 bookmark	3.3.4 relative vs absolute links	3.3.5 navigating simple folder hierarchies
1.1.3 Components of web design - the use of hyperlinks to join webpages	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

	3.2.1 Semantic tags	3.2.2 header	3.2.3 section	3.2.4 article	3.2.5 aside	3.2.6 footer	3.2.7 details	3.2.8 summary	3.2.9 figure	3.2.10 caption	3.3.1 Image links	3.3.2 target	3.3.3 bookmark	3.3.4 relative vs absolute links	3.3.5 navigating simple folder hierarchies
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## 4.0 Present Multimedia using HTML

	4.1.1 img and picture elements and their attributes	4.2 Describe the appropriate use of the img, svg and canvas elements	4.3 Construct and analyse mark-up that plays video and audio	4.3.1 video	4.3.2 audio	4.3.3 track	4.3.4 source	4.3.5 simple iframe implementations
1.1.3 Components of web design - the use of hyperlinks to join webpages	X	X	X	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

	4.1.1 img and picture elements and their attributes	4.2 Describe the appropriate use of the img, svg and canvas elements	4.3 Construct and analyse mark-up that plays video and audio	4.3.1 video	4.3.2 audio	4.3.3 track	4.3.4 source	4.3.5 simple iframe implementations
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X

## 5.0 Style Web Pages Using CSS

	5.1.1 Positioning including, float, relative, absolute, max-width overflow, height, width and align	5.1.2 inline vs block	5.1.3 visibility	5.1.4 box model	5.1.5 including margins and padding	5.2.1 font family	5.2.2 colour	5.2.3 font-style	5.2.4 font-weight	5.2.5 link colours	5.2.6 text-formatting	5.2.7 including text alignment, text decoration and indentation
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA HTML CSS 98-383

	5.1.1 Positioning including, float, relative, absolute, max-width overflow, height, width and align	5.1.2 inline vs block	5.1.3 visibility	5.1.4 box model	5.1.5 including margins and padding	5.2.1 font family	5.2.2 colour	5.2.3 font-style	5.2.4 font-weight	5.2.5 link colours	5.2.6 text-formatting	5.2.7 including text alignment, text decoration and indentation
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X	X	X
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X	X	X	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X	X	X	X	X	X

	5.3.1 Border-colour	5.3.2 border-style	5.3.3 border-width	5.3.4 backgrounds	5.3.5 divs	5.3.6 colours	5.4.1 units of measurement	5.4.2 responsive effects with CSS	5.4.3 including viewport and media query	5.4.4 percentage vs pixels	5.4.5 frameworks and templates	5.4.6 max-width
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X	X	X



# MAPPED TO MTA HTML CSS 98-383

	5.3.1 Border- colour	5.3.2 border- style	5.3.3 border- width	5.3.4 backgrounds	5.3.5 divs	5.3.6 colours	5.4.1 units of measurement	5.4.2 responsive effects with CSS	5.4.3 including viewport and media query	5.4.4 percentage vs pixels	5.4.5 frameworks and templates	5.4.6 max- width
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X	X	X
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X	X	X	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA JAVA SCRIPT 98-382

## 1. JavaScript Fundamentals (operators, variables)

	1.1.1 Assignment;	1.1.2 increment;	1.1.3 decrement;	1.1.4 addition;	1.1.5 subtraction;	1.1.6 division;	1.1.7 multiplication;	1.1.8 modulus;	1.1.9 compound assignment operators	1.2.1 Comments;	1.2.2 indentations;	1.2.3 naming conventions;	1.2.4 no script;	1.2.5 constants;	1.2.6 reserved keywords;	1.2.7 debugger keyword;	1.2.8 setting breakpoints;	1.2.9 console. log
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.3.2 Testing to include: functionality: embedded components	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA JAVA SCRIPT 98-382

	1.1.1 Assignment;	1.1.2 increment;	1.1.3 decrement;	1.1.4 addition;	1.1.5 subtraction;	1.1.6 division;	1.1.7 multiplication;	1.1.8 modulus;	1.1.9 compound assignment operators	1.2.1 Comments;	1.2.2 indentations;	1.2.3 naming conventions;	1.2.4 no script;	1.2.5 constants;	1.2.6 reserved keywords;	1.2.7 debugger keyword;	1.2.8 setting breakpoints;	1.2.9 console. log
3.3.3 Testing to include: functionality: programming language (e.g. JavaScript, Flash)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	1.3 Implement inline and external scripts. When to use, how to use, and what happens when both are used	1.4.1 try;	1.4.2 catch;	1.4.3 finally	1.5.1 Manage state;	1.5.2 display dialogs;	1.5.3 determine screen size
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X	X	X	X	X	X
3.3.2 Testing to include: functionality: embedded components	X	X	X	X	X	X	X
3.3.3 Testing to include: functionality: programming language (e.g. JavaScript, Flash)	X	X	X	X	X	X	X

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## 2. Variables, Data Types, and Functions

	2.1.1 Number;	2.1.2 Boolean;	2.1.3 String; Null;	2.1.4 Undefined;	2.1.5 Ntype of operator;	2.1.6 type checking functions;	2.1.7 use strict;	2.1.8 converting between data types;	2.1.9 formatting numbers;	2.1.10 string operations;	2.1.11 single quote vs double quote (nesting);	2.1.12 initialization	2.2.1 iteration;	2.2.3 initialization;	2.2.4 array definition;	2.2.5 sorting and searching;	2.2.6 push and pop;	2.2.7 shift/unshift;	2.2.8 length;	2.2.9 accessing an element;	2.2.10 understanding multi-dimensional arrays
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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	2.3.1 Properties;	2.3.2 methods;	2.3.3 instantiation;	2.3.4 Date object;	2.3.5 time;	2.3.6 retrieving date parts;	2.3.7 localization (MM/DD vs DD/MM);	2.3.8 adding and subtracting dates	2.4.1 Random;	2.4.2 round; abs; floor; ceiling; min/max; pow; sqrt	2.4.3 abs;	2.4.4 floor;	2.4.5 ceiling;	2.4.6 min/max;	2.4.7 pow;	2.4.8 sqrt	2.5.1 Reusable code;	2.5.2 local vs global scope, redefining variables, passing parameters, value vs. reference, return values
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## 3. Implement and analyse decisions and loops

	3.1 Evaluate expressions that use logical and comparison operators	3.2.1 if;	3.2.2 else if;	3.2.3 switch;	3.2.4 nested if	3.3.1 for;	3.3.2 while;	3.3.3 do;	3.3.4 break;	3.3.5 continue
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X

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	3.1 Evaluate expressions that use logical and comparison operators	3.2.1 if;	3.2.2 else if;	3.2.3 switch;	3.2.4 nested if	3.3.1 for;	3.3.2 while;	3.3.3 do;	3.3.4 break;	3.3.5 continue
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X

## 4. Interact with the DOM

	4.1.1 window;	4.1.2 document;	4.1.3 body;	4.1.4 other HTML elements	4.2.1 on change;	4.2.2 on mouseover;	4.2.3 onload;	4.2.4 on click;	4.2.5 on mouseout;	4.2.6 on keydown
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X

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	4.3.1 inner HTML;	4.3.2 document write	4.4.1 get Element ById;	4.4.2 get Elements By Tag Name;	4.4.3 get Elements By Class Name;
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X

## 5. Interact with HTML forms

	5.1.1 Retrieving form values;	5.1.2 the DOM path to form field and then to the value property;	5.1.3 getting values from different types of elements;	5.1.4 prepopulating values;	5.1.5 masking values	5.2.1 Case (upper and lower);	5.2.2 string comparisons;	5.2.3 validation;	5.2.4 NaN	5.3.1 on submit;	5.3.2 understand post vs get;	5.3.3 understand potential targets for submission
3.2.3 Interactive elements - language (e.g. JavaScript, Flash): writing code to perform	X	X	X	X	X	X	X	X	X	X	X	X
3.2.4 Interactive elements - language (e.g. JavaScript, Flash): allowing for user interaction (e.g. changing an image based on a user selection, validating input)	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA ADOBE DREAMWEAVER

## 1. Setting Project Requirements

	1.1 Identify the purpose, audience, and audience needs for a website.	1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.	1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.	1.5 Make website development decisions based on your analysis and interpretation of design specifications.	1.6 Understand project management tasks and responsibilities
1.1.2 Components of web design - the purpose or a site map	X				
1.1.4 Components of web design - the position, structure and purpose of a navigation bar	X	X			
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X			
1.1.6 Components of web design - designing for different browsers and devices: responsive design for mobile/tablet technology			X	X	
1.1.7 Components of web design - designing for different browsers and devices: how browser rendering can affect the layout of a webpage			X	X	
1.1.8 Components of web design - designing for different browsers and devices: an understanding of browser rendering engines as a key to performance			X	X	
1.1.9 Components of web design - designing for different browsers and devices: importance of design that takes this into account, what can happen when it is not considered			X	X	



# MAPPED TO MTA ADOBE DREAMWEAVER

	1.1 Identify the purpose, audience, and audience needs for a website.	1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.	1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.	1.5 Make website development decisions based on your analysis and interpretation of design specifications.	1.6 Understand project management tasks and responsibilities
1.1.12 Components of web design - methods of user interaction: difference methods of interaction			X	X	
1.1.13 components of web design - methods of user interaction: use of existing tools			X	X	
1.1.14 components of web design - methods of user interaction: use of languages to ad interactivity (e.g. JavaScript, Flash)			X	X	
2.1.2 Analyse needs - purpose of site	X				
2.1.3 Analyse needs - content		X			
2.2.1 Produce a plan - site map		X			
2.2.2 Produce a plan - navigation bar		X			
2.2.3 Produce a plan - page structure		X			
2.2.4 Produce a plan - design (e.g. font, colour)		X			
2.2.5 Produce a plan - Interactive elements to meet the client's needs			X		
2.2.6.1 Produce a plan - responsive design: for different devices e.g. tablet, phone, PC			X		
2.2.6.2 Produce a plan - responsive design: for different browsers e.g. IE, Chrome, Safari			X		

# MAPPED TO MTA ADOBE DREAMWEAVER

	1.1 Identify the purpose, audience, and audience needs for a website.	1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.	1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.	1.5 Make website development decisions based on your analysis and interpretation of design specifications.	1.6 Understand project management tasks and responsibilities
3.4.1 Evaluate against client needs including - choose a suitable method of a presentation (e.g. live demonstration, use of presentation software, report)					X
3.4.2 Evaluate against client needs including - how the prototype meets the site purpose (e.g. if e-commerce, how this has been incorporated)					X
3.4.3 Evaluate against client needs including - comparison of prototype against content required					X
3.4.4 Evaluate against client needs including - comparison of interactivity built in, against the user's interactive requirements					X
3.4.5 Evaluate against client needs including - comparison of responsive design to user's responsive design requirements					X
3.4.6 Evaluate against client needs including - justify choices made in the development of the prototype against the original needs					X
3.4.7 Evaluate against client needs including - improvements - suggest improvements to the design, structure or function of the prototype					X

# MAPPED TO MTA ADOBE DREAMWEAVER

	1.1 Identify the purpose, audience, and audience needs for a website.	1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.	1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.	1.5 Make website development decisions based on your analysis and interpretation of design specifications.	1.6 Understand project management tasks and responsibilities
4. Be able to present the interactive website concept to an identified client					X
4.1.1 Present the solution - choose a suitable method of presentation (e.g. live demonstration, use of presentation software, report)					X
4.1.2 Present the solution - plan a presentation to incorporate: comparison of the website against requirements					X
4.1.3 Present the solution - plan a presentation to incorporate: demonstration of functionality					X
4.1.4 Present the solution - plan a presentation to incorporate: demonstration of interactivity					X

# MAPPED TO MTA ADOBE DREAMWEAVER

## 2.0 Planning Site Design and Page Layout

	2.1 Demonstrate general and Dreamweaver-specific knowledge of best practices for designing a website, such as maintaining consistency, separating content from design, using standard fonts, and utilizing a visual hierarchy.	2.2 Produce website designs that work equally well on various operating systems, browser versions/ configurations and devices.	2.3 Demonstrate knowledge of page layout design concepts and principles.	2.4 Identify basic principles of website usability, readability, and accessibility.	2.5 Demonstrate knowledge of flowcharts, storyboards, wireframes, and design comps to create web pages and a site map (site index) that maintain the planned website hierarchy.
1.1.2 Components of web design - the purpose or a site map	X		X		
1.1.4 Components of web design - the position, structure and purpose of a navigation bar	X		X		
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)			X	X	
1.1.6 Components of web design - designing for different browsers and devices: responsive design for mobile/tablet technology		X	X	X	
1.1.7 Components of web design - designing for different browsers and devices: how browser rendering can affect the layout of a webpage		X	X	X	
1.1.8 Components of web design - designing for different browsers and devices: an understanding of browser rendering engines as a key to performance		X	X	X	
1.1.9 Components of web design - designing for different browsers and devices: importance of design that takes this into account, what can happen when it is not considered		X	X	X	
1.1.10 Components of web design - World Wide Web consortium: open and closed standards in web development		X	X	X	

# MAPPED TO MTA ADOBE DREAMWEAVER

	2.1 Demonstrate general and Dreamweaver-specific knowledge of best practices for designing a website, such as maintaining consistency, separating content from design, using standard fonts, and utilizing a visual hierarchy.	2.2 Produce website designs that work equally well on various operating systems, browser versions/ configurations and devices.	2.3 Demonstrate knowledge of page layout design concepts and principles.	2.4 Identify basic principles of website usability, readability, and accessibility.	2.5 Demonstrate knowledge of flowcharts, storyboards, wireframes, and design comps to create web pages and a site map (site index) that maintain the planned website hierarchy.
1.1.12 Components of web design - methods of user interaction: difference methods of interaction	X			X	
1.1.13 components of web design - methods of user interaction: use of existing tools	X				
1.1.14 components of web design - methods of user interaction: use of languages to add interactivity (e.g. JavaScript, Flash)	X				
2.1.3 Analyse needs - content	X	X	X	X	X
2.1.4 Analyse needs - user interactivity required (e.g. submission of data, maps)	X	X	X	X	X
2.1.5 Analyse needs - responsive design requirements	X	X	X	X	X
2.2.1 Produce a plan - site map	X	X	X	X	X
2.2.2 Produce a plan - navigation bar	X	X	X	X	X
2.2.3 Produce a plan - page structure	X	X	X	X	X
2.2.4 Produce a plan - design (e.g. font, colour)	X	X	X	X	X
2.2.5 Produce a plan - Interactive elements to meet the client's needs	X	X	X	X	X
2.2.6.1 Produce a plan - responsive design: for different devices e.g. tablet, phone, PC	X	X	X	X	X
2.2.6.2 Produce a plan - responsive design: for different browsers e.g. IE, Chrome, Safari	X	X	X	X	X

# MAPPED TO MTA ADOBE DREAMWEAVER

## 4.0 Adding Content by Using Dreamweaver

	4.1 Demonstrate knowledge of Hypertext Mark-up Language.	4.2 Define a Dreamweaver site	4.3 Create, title, name, and save a web page.	4.4 Add text to a web page	4.5 Insert images and apply alternative text on a web page	4.6 Link web content, using hyperlinks, e-mail links, and named anchors	4.7 Include video and sound in a web page.	4.8 Insert animation and interactivity to content.	4.9 Insert navigation bars, rollover images, and buttons created in a drawing program on a web page.	4.10 Import tabular data to a web page	4.11 Import and display a Microsoft Word or Microsoft Excel document to a web page.	4.12 Create forms.
1.1.3 Components of web design - the use of hyperlinks to join webpages	X	X				X						
1.1.4 Components of web design - the position, structure and purpose of a navigation bar	X	X	X						X			
1.1.5 Components of web design - page design (e.g. navigation bar, title, page content, a plan for content management)	X	X	X	X	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X	X	X	X	X

# MAPPED TO MTA ADOBE DREAMWEAVER

	4.1 Demonstrate knowledge of Hypertext Mark-up Language.	4.2 Define a Dreamweaver site	4.3 Create, title, name, and save a web page.	4.4 Add text to a web page	4.5 Insert images and apply alternative text on a web page	4.6 Link web content, using hyperlinks, e-mail links, and named anchors	4.7 Include video and sound in a web page.	4.8 Insert animation and interactivity to content.	4.9 Insert navigation bars, rollover images, and buttons created in a drawing program on a web page.	4.10 Import tabular data to a web page	4.11 Import and display a Microsoft Word or Microsoft Excel document to a web page.	4.12 Create forms.
3.2.1 Interactive elements - existing: copy HTML code from pre-existing components (e.g. social media feeds, videos, maps)	X	X	X	X	X	X	X	X	X	X	X	X
3.2.2 Interactive elements - existing: editing to make these appropriate for a webpage (e.g. making a map local)	X	X	X	X	X	X	X	X	X	X	X	X

## 5.0 Organizing Content by Using Dreamweaver

	5.1 Set and modify document properties.	5.2 Organize web page layout with relative and absolutely-positioned div tags and CSS styles.	5.3 Modify text and text properties	5.4 Modify images and image properties.	5.5 Create web page templates	5.6 Use basic HTML tags to set up an HTML document, format text, add links, create tables, and build ordered and unordered lists	5.7 Add head content to make a web page visible to search engines.	5.8 Use CSS to implement a reusable design.
2.2.3 Produce a plan - page structure	X	X	X	X	X	X	X	X

# MAPPED TO MTA ADOBE DREAMWEAVER

	5.1 Set and modify document properties.	5.2 Organize web page layout with relative and absolutely-positioned div tags and CSS styles.	5.3 Modify text and text properties	5.4 Modify images and image properties.	5.5 Create web page templates	5.6 Use basic HTML tags to set up an HTML document, format text, add links, create tables, and build ordered and unordered lists	5.7 Add head content to make a web page visible to search engines.	5.8 Use CSS to implement a reusable design.
2.2.4 Produce a plan - design (e.g. font, colour)	X	X	X	X	X	X	X	X
3.1.1 Creating a prototype - setting structure	X	X	X	X	X	X	X	X
3.1.2 Creating a prototype - adding content	X	X	X	X	X	X	X	X
3.1.3 Creating a prototype - inserting hyperlinks	X	X	X	X	X	X	X	X
3.2.8 Interactive elements - CSS: responsive design	X	X	X	X	X	X	X	X

## 6.0 Evaluating and Maintaining a Site by Using Dreamweaver CS6

	6.1 Conduct technical tests.	6.2 Identify techniques for basic usability tests.	6.3 Identify methods for collecting site feedback.	6.4 Manage assets, links, and files for a site.	6.5 Publish and update site files to a remote server.
3.3.1 Testing to include: checking content is appropriate, correct and complete	X	X			
3.3.2 Testing to include: functionality: embedded components	X	X			



# MAPPED TO MTA ADOBE DREAMWEAVER

	6.1 Conduct technical tests.	6.2 Identify techniques for basic usability tests.	6.3 Identify methods for collecting site feedback.	6.4 Manage assets, links, and files for a site.	6.5 Publish and update site files to a remote server.
3.3.5 Testing to include: comparison to requirements	X	X			
3.3.6 Testing to include: responsive design: multiple devices	X	X			
3.3.7 Testing to include: responsive design: multiple browsers	X	X			
3.4.1 Evaluate against client needs including - choose a suitable method of a presentation (e.g. live demonstration, use of presentation software, report)			X		
3.4.2 Evaluate against client needs including - how the prototype meets the site purpose (e.g. if e-commerce, how this has been incorporated)			X		
3.4.3 Evaluate against client needs including - comparison of prototype against content required			X		
3.4.4 Evaluate against client needs including - comparison of interactivity built in, against the user's interactive requirements			X		
3.4.5 Evaluate against client needs including - comparison of responsive design to user's responsive design requirements			X		
3.4.6 Evaluate against client needs including - justify choices made in the development of the prototype against the original needs			X		
3.4.7 Evaluate against client needs including - improvements - suggest improvements to the design, structure or function of the prototype			X		
4.2.1 Future security and maintenance considerations - updating of content				X	X



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