

Math Planned Course: Web Design - Grades 9 - 12

Unit: Basic Design Principles

Content Standard: **Apply basic design principles to web pages and web sites.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Basic Design Principles to Learn and Apply to Web Pages and Web Sites: <ul style="list-style-type: none">AlignmentProximityRepetitionContrastFocal point	<ul style="list-style-type: none">Identify alignmentDistinguish proximityRecognize repetitionAssociate contrastEstablish focal point	<ul style="list-style-type: none">ComputersInternet browserInternet connectionISTE's Educational Technology Standards (see Appendix)	<ul style="list-style-type: none">Classroom discussions and participationPortfolio evaluationTeacher generated rubricsPeer reviewOral/visual presentation

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Unit: **Hypertext Markup Language (HTML)**

Content Standard: **Create web pages and a web site using Hypertext Markup Language (HTML) source code.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Web Page Elements and Their Appropriate HTML Tags: <ul style="list-style-type: none">TitleParagraphsBreaksHorizontal rulesHeadingsListsTablesLinksAnchorsBackgroundsGraphicsMusic	<ul style="list-style-type: none">Create titlesCompose paragraphsApply breaksInsert horizontal rulesCreate headingsConstruct listsDevelop tablesCreate linksUse anchorsChange backgroundsInsert graphicsEmbed music	<ul style="list-style-type: none">ComputersInternet browserInternet connectionText editorISTE's Educational Technology Standards (see Appendix)	<ul style="list-style-type: none">Classroom discussions and participationPortfolio evaluationTeacher generated rubricsPeer reviewOral/visual presentation

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Unit: **HTML Editors**

Content Standard: **Create web pages and a web site using an HTML editor.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Web Site Elements <ul style="list-style-type: none"> • Paragraphs • Lists • Tables • Links • Anchors • Backgrounds • Graphics • Frames • Music • Rollovers • Forms 	<ul style="list-style-type: none"> • Compose paragraphs • Construct lists • Insert tables • Create links • Use anchors • Change backgrounds • Insert graphics • Construct frames • Embed music • Create rollovers • Develop forms 	<ul style="list-style-type: none"> • Computers • Internet browser • Internet connection • HTML editor • ISTE's Educational Technology Standards (see Appendix) 	<ul style="list-style-type: none"> • Classroom discussions and participation • Portfolio evaluation • Teacher generated rubrics • Peer review • Oral/visual presentation

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Unit: **Images**

Content Standard: **Construct, enhance, and manipulate images to be used on web pages.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Drawing Tools	<ul style="list-style-type: none"> Draw objects 	<ul style="list-style-type: none"> Computers 	<ul style="list-style-type: none"> Classroom discussions and participation
B. Selection Tools	<ul style="list-style-type: none"> Select objects 	<ul style="list-style-type: none"> Internet connection 	<ul style="list-style-type: none"> Portfolio evaluation
C. Text	<ul style="list-style-type: none"> Use text 	<ul style="list-style-type: none"> Image editing software 	<ul style="list-style-type: none"> Teacher generated rubrics
D. Layers	<ul style="list-style-type: none"> Create layers 	<ul style="list-style-type: none"> ISTE's Educational Technology Standards (see Appendix) 	<ul style="list-style-type: none"> Peer review
E. Opacity	<ul style="list-style-type: none"> Alter opacity 		<ul style="list-style-type: none"> Oral/visual presentation
F. Gradient	<ul style="list-style-type: none"> Apply gradient 		
G. Color Balance	<ul style="list-style-type: none"> Change color balance 		
H. Resize	<ul style="list-style-type: none"> Resize objects 		
I. Brightness/Contrast	<ul style="list-style-type: none"> Adjust brightness/contrast 		
J. Mode	<ul style="list-style-type: none"> Switch mode 		
K. Filters	<ul style="list-style-type: none"> Apply filters 		
L. Layer Styles	<ul style="list-style-type: none"> Use layer styles 		
M. History			

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	• Change history		
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Unit: Animations

Content Standards: **Create animations for web pages.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Drawing Tools	<ul style="list-style-type: none">• Draw objects	<ul style="list-style-type: none">• Computers	<ul style="list-style-type: none">• Classroom discussions and participation
B. Selection Tools	<ul style="list-style-type: none">• Select objects	<ul style="list-style-type: none">• Internet connection	<ul style="list-style-type: none">• Portfolio evaluation
C. Frames	<ul style="list-style-type: none">• Insert frames	<ul style="list-style-type: none">• Animation software	<ul style="list-style-type: none">• Teacher generated rubrics
D. Layers	<ul style="list-style-type: none">• Create layers	<ul style="list-style-type: none">• ISTE's Educational Technology Standards (see Appendix)	<ul style="list-style-type: none">• Peer review
E. Text	<ul style="list-style-type: none">• Use text		<ul style="list-style-type: none">• Oral/visual presentation
F. Movement	<ul style="list-style-type: none">• Move objects		
G. Direction	<ul style="list-style-type: none">• Change direction		
H. Scaling	<ul style="list-style-type: none">• Scale objects		
I. Rotation	<ul style="list-style-type: none">• Rotate objects		
J. Opacity	<ul style="list-style-type: none">• Alter opacity		
K. Color	<ul style="list-style-type: none">• Apply color		

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Unit: **Cascading Style Sheets (CSS)**

Content Standard: **Create CSS files for web pages.**

State Curriculum Standards:

3.7.10.C. Apply basic computer operations and concepts.

3.7.12.C. Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10.D. Utilize computer software to solve specific problems.

3.7.12.D. Evaluate the effectiveness of computer software to solve specific problems.

3.7.10.E. Apply basic computer communications systems.

3.7.12.E. Assess the effectiveness of computer communication systems.

Course Content	Student Performance	Resources	Assessments
A. Font Type	<ul style="list-style-type: none">• Set font type	<ul style="list-style-type: none">• Computers	<ul style="list-style-type: none">• Classroom discussions and participation
B. Italics	<ul style="list-style-type: none">• Use italics	<ul style="list-style-type: none">• Internet connection	<ul style="list-style-type: none">• Portfolio evaluation
C. Bold	<ul style="list-style-type: none">• Apply bold	<ul style="list-style-type: none">• Text editor	<ul style="list-style-type: none">• Teacher generated rubrics
D. Font Size	<ul style="list-style-type: none">• Change font size	<ul style="list-style-type: none">• ISTE's Educational Technology Standards (see Appendix)	<ul style="list-style-type: none">• Peer review
E. Line Height	<ul style="list-style-type: none">• Adjust line heights		<ul style="list-style-type: none">• Oral/visual presentation
F. Color	<ul style="list-style-type: none">• Add color		
G. Spacing	<ul style="list-style-type: none">• Alter spacing		
H. Text Alignment	<ul style="list-style-type: none">• Align text		
I. Text Case	<ul style="list-style-type: none">• Adjust text case		
J. Text Backgrounds	<ul style="list-style-type: none">• Change text backgrounds		
K. Indents	<ul style="list-style-type: none">• Use indents		
L. White Space	<ul style="list-style-type: none">• Add white space		