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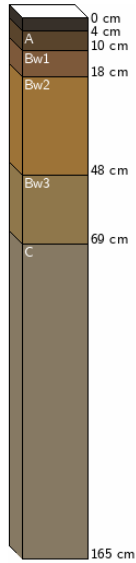
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**Civil Engineering Discipline Project: Soil Science
Activity Part 3 Worksheet**

Question	Answer
1) What is the soil number at 10 Mill Street? <i>5 points</i>	103B
2) List all the soil types under the "Map Unit Composition" tab and their relative percentages. <i>15 points</i>	Charlton 50% Hollis 25% Rock Outcrop 15% Canton 2% Woodbridge 2% Scituate 2% Narragansett 2% Unnamed 1% Montauk 1%
3) Click on the soil type that makes up most of the soil at the site. Draw the soil profile. <i>15 points</i>	

Name: _____

Date: _____

	 <p>0 cm 4 cm A 10 cm Bw1 18 cm Bw2 48 cm Bw3 60 cm C 165 cm</p>
<p>4) Click on “Soil Data Explorer” in top left corner. What does the webpage say about the soil’s drainage and formation?</p> <p>10 points</p>	<p>The soils are well drained and were formed in loamy melt-out till.</p>
<p>5) Under “Typical Pendon” the soil layers are listed. List and describe all the layers.</p> <p>15 points</p>	<p>Oe: 0-4cm, black (10YR 2/1) moderately decomposed forest plant material</p> <p>A: 4 to 10cm, dark brown (7.5YR 3/3) fine sandy loam, weak fine granular structure, very friable, many fine roots, 5% gravel, very acidic, abrupt smooth boundary</p> <p>Bw1: 10 to 18 cm, brown (7.5YR 4/4) fine sandy loam, weak coarse granular structure, very friable, many fine and medium roots, 5% gravel, acidic, clear wavy boundary</p> <p>Bw2: 18 to 48 cm, yellowish brown (10YR 5/6) fine sandy loam, weak medium subangular blocky structure, very friable, common fine and medium roots, 10% gravel and cobbles, acidic, clear wavy boundary</p>

Name: _____

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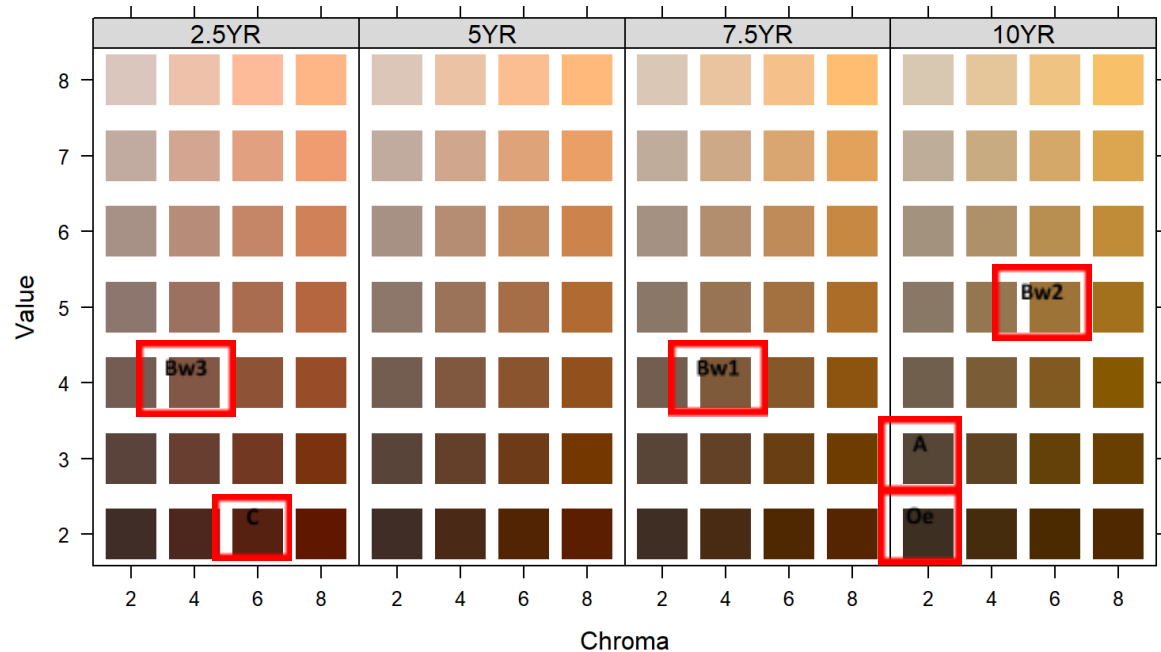
Bw3: 48 to 69 cm, light olive brown (2.5Y 5/4) gravelly fine sandy loam, massive, very friable, few medium roots, 15% gravel and cobbles, acidic, abrupt wavy boundary

C: 69 to 165cm, grayish brown (2.5Y 5/2) gravelly fine sandy loam with thin lenses of loamy sand, friable, some lenses firm, few medium roots, 25% gravel and cobbles, acidic

6) The number and letter combinations in parentheses next to the soil layers represent shades of color. Find the color (or next closest) on the chart for each layer by circling the boxes and labeling with the layer label. 10YR 2/1 is done for you as an example (Oe horizon). As you can see the next closest color to 10YR 2/1 is 10YR 2/2.

20 points

Common Soil Colors



7) Under "Range in Characteristics" the webpage says, "The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 6. Texture is loam, fine sandy loam, or sandy

Loamy sand is primarily comprised of sand while sandy loam is primarily comprised of loam.

Name: _____

Date: _____

loam in the fine-earth fraction, with pockets or thin lenses of loamy sand." What is the difference between a loamy sand and a sandy loam?

10 points