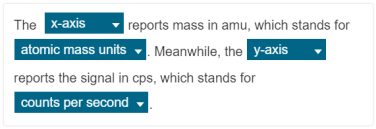
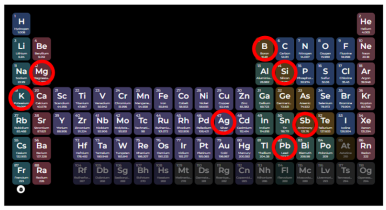
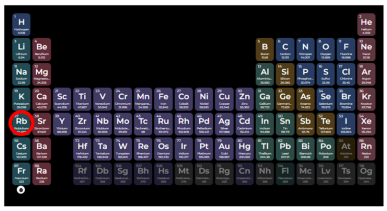
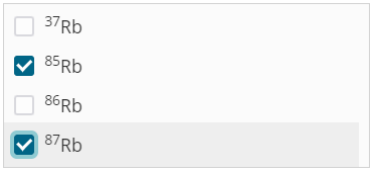
Happy Path - Unit 2 Exploration: Do You Really Want to Drink That? The Elements of Water

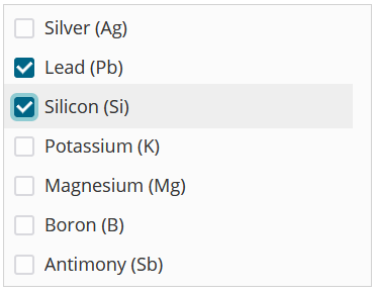
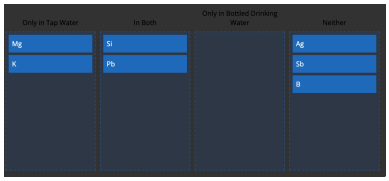
#	Screen Name	For this	Do this	Screenshot	Learning Objectives
1	**Title**		Click Begin		
4	**Welcome**	Text input	Type a name		
			Click Next		
7	**Prior Knowledge Check**		Wait at least 10 seconds		
			Click Next		
10	**Routine**	Text input	I know it’s important to stay hydrated. I try to drink at least a gallon of water per day.		
			Click Next		
13	**Source**	Text input	I like the taste of bottled water, but it can get expensive. That's why I mostly drink filtered tap water.		
			Click Next		
18	**Whats in Water**		Click Next		
22	**Question**	Multiple choice	Select **Bottled Drinking Water**		
			Click Next		
25	**Hypothesis 1**	Multiple choice	Select **Kyan's sounds about right.**		
			Click Next		
28	**Hypothesis 2**	Dropdown	Select **more**		

			Click Next		
29	**Hypothesis 3**	Text input	I think water gets filtered before it is bottled. As part of that process, a bunch of elements get removed.		
			Click Next		
32	**Start**	Multiple choice	Select **Tap Water**		
			Click Next		
			Click Next		
35	**Mass Spec**		Click Next		
39	**MS Overview**	Fill in the blanks	The **x-axis** reports mass in amu, which stands for **atomic mass units**. Meanwhile, the **y-axis** reports the signal in cps, which stands for **counts per second**.		
			Click Check		
			Click Next		
40	**Sample 1 Test**	Mass Spec simulator	**Drag** blue water sample vial at left and **drop** onto sample rack in clear case to the right.		
			Click Run Sample		
			Click Next		
43	**Sample Elements**	Text input - 1st most common	H		Classify matter as element, compound, or mixture.
		Text input - 2nd most common	O		
			Click Check		
			Click Next		
46	**H and O**		Click Next		
49	**MS Scan**	Multiple choice	Select **No**		

			Click Check		
			Click Next		
56	**Log**	Multi select	Select **Y-axis**		
			Select **Signal (cps)**		
			Click Check		
			Click Next		
59	**Linear v Log**	Text input - Mass 23 on linear	484620		
		Text input - Mass 23 on log chart	484620		
			Click Check		
			Click Next		
61	**Which Elements**	Multiple choice	Select **Seven, please!**		
			Click Next		
			Click Next		
62	**The Seven Elements**	Find on Periodic Table	Select **Ag, B, Si, K, Mg, Pb, Sb**		
			Click Check		
			Click Next		

68	**How to Find**	Find on Periodic Table	Select **Rb**		Apply the concepts of isotopes and their percent abundance to make calculations associated with atomic mass.
			Click Next		
69	**Updated Periodic Table**		Click Next		
64	**Chart X-axis**	Multiple choice	Select **The mass of the atom**		
			Click Check		
			Click Next		
70	**Find Isotopes**	Multi select	Select **^{85}Rb** and **^{87}Rb**		Interpret chemical symbols for isotopes and ions.
			Click Check		
			Click Next		
71	**Find the Mass**	Slider	Move to **85**		Apply the concepts of isotopes and their percent abundance to make calculations associated with atomic mass.
			Click Check		
			Click Next		
72	**Check Mass Spectrum**	Multiple choice	Select **Yes**		
			Click Check		
			Click Next		

73	**Rb Summary**	Fill in the blanks	Look at the element's **isotopes** and see if the chart has a bar matching their **mass numbers** on the **x-axis**.	Look at the element's isotopes and see if the chart has a bar matching their mass numbers on the x-axis.	Interpret chemical symbols for isotopes and ions.
			Click Check		
			Click Next		
67	**You've Got This**		Click Next		
75	**Tap Identify Elements**	Multi select	Select **Pb, K, Si, Mg**	☐ Silver (Ag) ☑ Lead (Pb) ☐ Boron (B) ☑ Potassium (K) ☑ Silicon (Si) ☐ Antimony (Sb) ☑ Magnesium (Mg)	Interpret chemical symbols for isotopes and ions.
			Click Check		
			Click Next		
86	**Other Sample**		Click Next		
			Click Next		
87	**Sample 2 Test**	Mass Spec simulator	**Drag** blue water sample vial at left and **drop** onto sample rack in clear case to the right.		
			Click Start		
			Click Next		

77	**Bottled Drinking Water Identify Elements**	Multi select	Select **Pb, Si**		Interpret chemical symbols for isotopes and ions.
			Click Check		
			Click Next		
90	**Compare Choice**		Click Next		
91	**Tap v Bottled Drinking**	Drag and drop - Only in Tap Water	**Mg, K**		
		Drag and drop - In Both	**Si, Pb**		
			Click Next		
			Click Next		
98	**Revisit Hypothesis**	Multiple choice	Select **Yes**		
101	**Most Elements 1**	Multiple choice	Select **Creek water**		
			Click Next		
			Click Next		
104	**Most Elements 2**	Text input	Creek water is the most natural and least filtered, so it has the most elements.		

			Click Next		
			Click Next		
105	**Most Elements 2.1**		Click Next		
108	**Most Elements 3**	Multiple choice	Select **No**		
			I’ve heard that drinking untreated water can be unsafe. It might contain animal waste and toxins from the environment.		
			Click Check		
			Click Next		
109	**Most Elements 3.1**		Click Next		
112	**Fewest Elements 1**	Multiple choice	Select **Distilled water**		
			Click Check		
			Click Next		
115	**Fewest Elements 2**	Text input	Distilled water goes through extensive processing, which removes minerals and other elements.		
			Click Next		
			Click Next		
116	**Fewest Elements 2.1**		Click Next		
119	**Fewest Elements 3**	Multiple choice	Select **Yes**		
		Text input	Distilled water is too purified. It doesn’t contain essential elements that the human body needs for survival.		
			Click Check		
			Click Next		
120	**Fewest Elements 3.1**		Click Next		

123	**Which are Safe? 1**	Multi select	Select **Bottled drinking water**		
			Select **Tap water**		
			Select **Bottled spring water**		
			Click Check		
			Click Next		
124	**Which are Safe? 1.1**		Click Next		
128	**Which are Safe? 2**	Multiple choice	Select **Yes**		
		Text input	I am concerned but I also think it depends on how much Pb is in the water. Small amounts are probably safe.		
			Click Next		
			Click Next		
131	**Now What**	Text input	Yes. I am going to look at reports about the water company that provides service to my house. I want to make sure they are doing adequate testing.		
			Click Next		
134	**Wrap Up**	Button	Click Finish Exploration		