LI to select numbers from a table and multiply them.

Success Criteria	Self-assess
I can find the numbers I need in the table.	
I can multiply them correctly.	
I can say what my answer means in the real-world situation.	

River Health

"Can you help me work out how healthy these two rivers are?"

Olivia is a scientist who studies rivers. She is investigating how healthy two rivers are by looking at the invertebrates living in them.

Each invertebrate is given a score based on how well it can survive pollution

- **Animals that live only in clean water = high score**
- **Animals that can live in dirty, polluted water = low score**

Now, let's use the table to work out how healthy the river is:

1) **Multiply**: Take each animal's pollution score and multiply it by how many were found.
2) **Write it down**: Fill in the last column with your answers.
3) **Add it up**: Add up all the numbers in the number found column and in the last column.
4) **Match your answer** to the water quality scale below to see how healthy or unhealthy the river is.

Water Quality scale:

River Health	0 – 1.9	2 – 3.9	4 – 5.9	6 – 7.9	8-10
Water Quality	Very Poor	Poor	Moderate	Good	Very Good

LI to select numbers from a table and multiply them.

River Nith

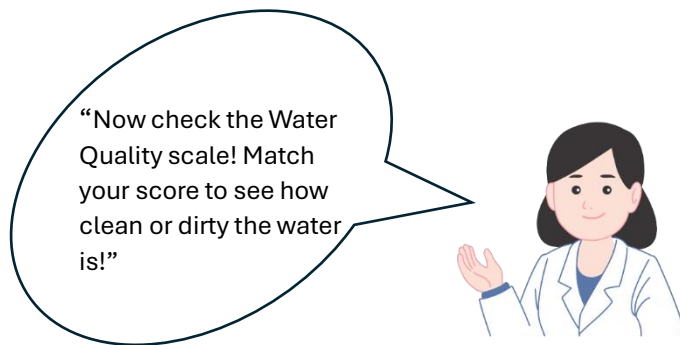| Invertebrate	Pollution score	Number found in River	Total
Freshwater Shrimp	4	166	**4 x 166 = 264**
Water Louse	4	88	
Leech	3	65	
Snail	2	140	
Beetle	5	118	
Worm	1	215	
Pond Skaters	5	60	
Water boatman	5	120	
	Total		

LI to select numbers from a table and multiply them.

Now, let's work out the river's health score

1) Add up all the **"Number Found"** to get the total animals =

2) Add up all the **"Total Scores"** from the last column =

3) Divide the total score by the total number of animals for **River Health Score** =

"Now check the Water Quality scale! Match your score to see how clean or dirty the water is!"

4) What is the river Nith's Water quality value? =

Compare with the River Dee

Repeat the same steps for the River Dee table

River Dee

Invertebrate		Pollution score	Number found in river	Total
Water Boatman		5	12	
Snail		3	22	
Beetle		6	54	
Limpet		8	14	
Freshwater Crayfish		10	24	
	Total			

LI to select numbers from a table and multiply them.

1. What is the river health score? (Remember: divide the total score by the total number of animals) =

2. What is the water quality value? (use the scale on page 1) =

"Thank you! Which river is healthier?"

3) The healthiest river =