

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



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

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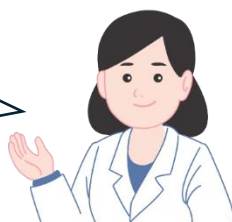
### River Nith

Invertebrate	Pollution score	Number found in River	Total
Water Louse 	4	38	<b>4 x 38 = 152</b>
Snail 	3	126	
Worm 	3	103	
Pond Skaters 	1	492	
Water boatman 	2	384	
	Total		

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) River Nith's **Water Quality** score =

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### 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 Louse 	3.4	88	
Limpet 	8.7	76	
Cased caddisfly larvae 	6.2	10	
Beetle 	5.4	18	
Freshwater shrimp 	6.3	24	
	<b>Total</b>		

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) =



3. The healthiest river =