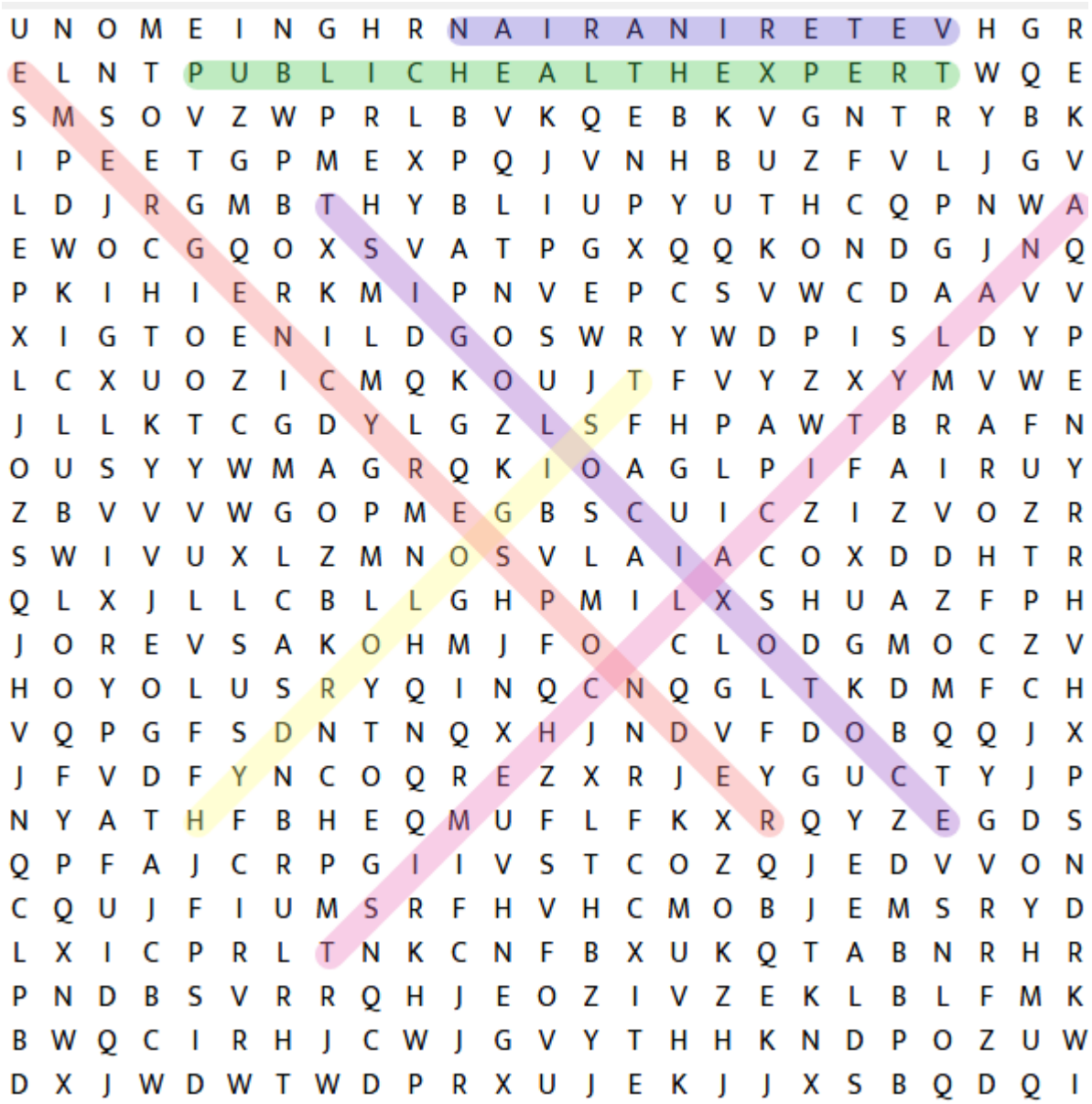
1.

It's time to gather your experts, a team of 6 heroes, who will help you solve this toxicological nightmare! Within this wordsearch you will find the job titles of the following six experts:

1. Expert in animal health and anatomy (VETERINARIAN)
2. Issues and illnesses of the general public (PUBLIC HEALTH EXPERT)
3. First aid – to people and the environment, when it is needed really quickly (EMERGENCYRESPONDER)
4. Studies poisons in wildlife (ECOTOXICOLOGIST)
5. Can tell you what chemicals are in a sample (ANALYTICAL CHEMIST)
6. A water scientist (HYDROLOGIST)



2.

Now, let's have a closer look at what is happening. Surely, there are clues to help us pin down how this disaster progressed. Were there first signs ignored or not taken seriously enough? What did the briefing note say, and are there any additional events?

Try to **put the following events in a sequence**.

A N A T I D A E

(Lat.; family of waterbirds including the mallard)

8E

The regional environmental agency assembles a specialized team of forensic environmental toxicologists to lead the investigation into the river's contamination and its effects.

5I

Local authorities issue a public advisory, warning against use of river water for drinking, irrigation, or agricultural purposes, and request water quality analysis.

7A

Veterinary pathologists perform necropsies on affected wildlife, noting unusual patterns consistent with neurotoxin exposure, and alarm the reginal environmental agency.

6D

Water quality analyses report abnormal chemical signatures in river samples, which warrant pathologic examination of the collected wildlife carcasses.

4T

Park Rangers, investigating the wildlife anomalies, discover an ominous note affixed to a tree, suggesting intentional river contamination. Local authorities are being informed.

2N

Fishermen document widespread fish mortality, observing multiple species floating lifeless on the river's surface.

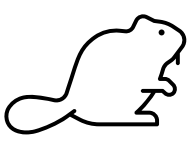
3A

Volunteer wildlife biologists confirm widespread paralysis among the local beaver population, particularly those near the river mouth.

1A

Ornithologists report a sudden increase in bird fatalities, with numerous avian carcasses found throughout Nowhere village.

Now **choose the right picture** from the code word:





3.

Your team of toxicologists have collected samples from 5 different sites. Find each of the sample sites that were damaged, marked on the map of Nowhere Village. **Can you put together the map?**

The samples collected from 5 different sites have been sent to the laboratory for analysis using Liquid Chromatography Mass Spectrometry. Your task is to determine the source of contamination by analysing the data. Carefully examine the chromatograms and compare the intensity of the key unknown compound across the different sample locations. Can you pinpoint the location where the contamination began?

Analyte 4

Sample Location 5

4.

So now you have the especially important task of revealing what the compound that is causing all this commotion is. Use the mass spectrogram and the reference table to identify the fragments of the chemical to put it together. There was a clue left at the scene, which gives us 4 options. Which one is it?

NESTrovium

5.

You will find the name of your villain hidden in the images below:

DR~~UM~~

-um

~~LL~~AM~~A~~

-ll

-a

MON~~EY~~^{IA}

ey=ia

Dr. Ammonia

6.

Want to know how to neutralise my mystery compound? Here's how:

This Cypher Text was found in the villain's secret laboratory:

Cypher Text: A P G C R J Y J L P D T T J F O U Y A I R B X G D C C

Name: A M M O N I A A M M O N I A A M M O N I A A M M O N I

Message: N E U T R A L I Z E I T W I T H O R A N G E J U I C E

7.

What a ride! We are finally almost there.

One last action remains: we need to formulate the neutralising agent. Fortunately, the Environmental Protection Office has the right recipe to help with this.

But what's that? The file is stored on an old machine and only returns the information in the form of light signals. It goes like this:

- .... . / ..-. --- ..- .-. / -. ..- -- -... . .-. ... / .. -. / - .... . /
The four numbers in the
.–. . –.–. .. .––. . / --. .. ...- . / -.-- --- ..- / - .... . / -.-. --- -.. . /

recipe give you the code
..-. --- .-. / - .... . / .-.. --- -.-. -.- /.-.-.- /
for the lock [.]

..- ... . / ....- / .--. .- .-. - ... / --- ..-. / - .... . /
use **4** parts of the
-. . ..- - .-. .- .-.. .. .. -. --. / .- --. . -. - / .. -. / .---- /
neutralising agent in **1**
.-.. .. - . .-. / .-- .- - . .-. /.-.-.- /
liter water [.]

... .- -.- . / .-- .. .-.. -.. .-.. -.-- / ..-. --- .-. / - .... .-. . . /
shake wildly for **three**
-- .. -. ..- - . ... / .- -. -.. / .- .--. .--. .-.. -.-- / - --- /
minutes and apply to
-.-. --- -. - .- -- .. -. .- - . -.. / .-- .- - . .-. / ..-. --- .-. / .- - /
contaminated water for at
.-.. . .- ... - / ----. / .... --- ..- .-. ... /--..-- /
least **9** hours [,]
.--. .-. . ..-. . .-. .- -... .-.. -.-- / --- ...- . .-. / -. .. --. .... - /.-.-.-//
preferably over night [.]