Science In Action 9 - Numerical Response Questions - Environmental Chemistry

 Nitrogen is important for all living things. The *Nitrogen Cycle* enables living organisms to utilize the free nitrogen in the atmosphere because of nitrogen fixation.

What is the percentage (to the nearest tenth) representing the amount of free nitrogen in the atmosphere?

7	8		0
		Ţ.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

- 2. **Acidity** is measured on the pH scale. The scale varies according to the strength of a particular chemical.
 - 1 Drain cleaner has a pH of 13.8
 - 2 Tomatoes have a pH of 4.2
 - 3 Battery Acid has a pH of 0.5
 - 4 Baking Soda has a pH of 8.2

Order the chemical substances described above from the strongest Acid to the strongest base

3	2	4	1
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

3. **Indicators** are used to identify different types of **organic molecules**. Match the indicator used for each type of Organic molecule listed.

Indicators:

- 1 Benedict's solution
- 2 Biuret solution
- **3** lodine solution
- 4 Translucent Spot on Brown paper

Fat/Oil Starch Protein Glucose

3	2	1
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
	. 0 1 2 3 4 5 6 7 8	

 The environment is very sensitive to the addition or removal of toxic chemicals in large amounts. An oil spill, such as the one from the Exxon Valdez, was very damaging to the environment.

In what year did this environmental tragedy occur?

1	9	8	9
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9