Binary Numbers

Worksheet (Grade Level) Name _____

Question 1

How do binary numbers represent data in a computer, and why are only 0s and 1s used?

Question 2

What is the difference between a bit and a byte in binary systems?

Question 3

Why is binary more efficient for computers to process compared to decimal numbers?

Question 4

How does an AND logic gate determine its output based on its inputs?

Question 5

How does an OR logic gate differ from an AND gate in terms of its output?

Question 6

In what real-life situations might binary and logic gates be used in technology?

Notes:

Binary Numbers

Worksheet (Higher Level) Name _____

Question 1

How does binary represent data in computers, and what advantages does it offer over other number systems?

Question 2

What is the role of bits and bytes in data storage and processing within a digital system?

Question 3

Why is binary the preferred number system in computing rather than decimal or other base systems?

Question 4

How does an AND gate function in a logical circuit, and when does it output a 1?

Question 5

What is the main difference between an AND gate and an OR gate in terms of their output logic?

Question 6

How are binary numbers and logic gates utilized in real-world technology applications?

Notes:

Binary Numbers

Worksheet (Lower Level) Name _____

Question 1

What are binary numbers, and why do computers use only 0s and 1s?

Question 2

What is a bit and a byte, and how are they used in computers?

Question 3

Why do computers use binary instead of regular numbers like 1, 2, and 3?

Question 4

How does an AND gate work, and when does it give a 1 as the answer?

Question 5

What is the difference between an AND gate and an OR gate?

Question 6

How are binary numbers and logic gates used in things like computers or phones?

Notes: