**Math reading**

**The Codes Story**

The Math coding story starts in the middle of the 20th century. The beginning of the story marks the arrival of mathematician Richard Hamming at The Bell Laboratory. Hamming was a member of the department which carried out the research in the field of Math. As he used to say himself, he was a first-class mischief maker. However, he often had fresh and good ideas for problem-solving and that's why his bosses tolerated him. Hamming studied physical problems and he made numerous Math calculations.

The codes story started accidentally one Friday afternoon in 1947. That day Hamming set up his calculating machine to do a very long and complicated calculation over the weekend. But, on Monday he realized that there was a mistake in the early phase of the calculation and the whole weekend's results were wrong. The machine wrote down the information in the sequence of zeros and ones. If an alteration occurred in any of the positions and zero would switch to one, or vice versa, the whole calculation was invalid.

Therefore, Hamming speculated in this way: if a machine would recognize that the mistake occurred, then there would be a way for the machine to correct the mistake. Hamming set himself up to think of the solution to the problem. He was aware that this solution would have many usages.

Hamming's first attempt to solve the problem is called the parity check code. In 1950 Hamming published his scientific paper in which he describes his solution. The part of Math which deals with developing new codes is called the coding theory. Hamming is known as the father of the coding theory.

Since then, the coding theory has developed fast and we use codes daily: while working on computers, using smartphones, while watching TV, while playing computer games, while listening to music...

QUESTIONS:

1. What day of the week did the coding story start?
2. What is the name of the father of the coding theory?
3. Where do we use codes?

QUESTIONS (AFTER ANALYSES OF THE TIME LINE):

1. How many decades ago did the coding theory start?

2. How many years did Hamming take to come up with a solution and publish his scientific paper?