Math learning

In the process in grades 5-6 there is a transition from primary to primary school, so students try to adapt to the middle link. 11-13 years old is considered age between childhood and adolescence. The age at which school changes dramatically the life of a child. This is the age associated with two crises age and educational, it is difficult for a child to cope with these crises.
Child's educational crisis is associated with major changes in school life during the transition from primary to primary school. Everything changes, many appear classrooms, teachers. There is no longer a teacher who knows you completely. In grade 5 begins fading interest in learning. Pupils hardly get used to new teachers, to their expectation, requirements. The teacher has to consider age-related features schoolchildren 11-13 years old. In preparing for the lesson, the teacher should strive, given real opportunities and individual characteristics of students, use techniques, to interest the student. Then there is a greater interest of children in the lesson. Teacher should introduce novelty elements as often as possible, use cognitive games, in which the student could prove himself to show his best qualities, new received knowledge. When presenting the material, you need to do more interesting tasks on amusement, unusualness that arouses the interest of students.

Game technology
Children have a strong need for a game; in a game, children willingly overcome significant difficulties, train their strengths, develop abilities and skills. Games help make any task fun, create a joyful working mood, make it easier learning process. Game tasks develop children's ingenuity, resourcefulness, quick wits. Here are some examples of gaming techniques.
Quick mind count All elementary school graduates know how to quickly multiply a number by 10, you just need to add zero at the end, in grade 5 it's time to show a trick how easy it is to multiply two-digit number at 11.
Multiplying tens by "11".
You should "push" the digits of the number multiplied by 11, and in the resulting gap enter the sum of these numbers, and if this amount is more than 9, then, as in the usual addition, the unit should be transferred to the senior level.
Example:
34 11 374, since 3 4 7, we place the seven between the three and the four.
68 11 748, since 6 8 14, put the four between the seven (six plus transferred unit) and figure eight.
Appendix 2
Mathematical Puzzles
  Rebus is a word or phrase encrypted with pictures, numbers, letters or signs. Rebus reads from left to right. Solve the rebus, best of all, armed with paper and a pen so as not to forget the previously guessed. When guessing the puzzles you need to know some conventions. Sometimes in front of a sign or in front of a painted object one or two quotation marks. This means that in a word that you will name by sign or figure, you must discard one or two first letters. If quotation marks are followed by a or drawn object, it is necessary in the corresponding word to discard the last letters. IN In some cases, the rebus shows which letter should be discarded in the middle of the word or replace it with another letter. Finally, if the item is drawn upside down, it’s means that the word should not be read usually, but from the end (for example, read “MOD” instead "HOUSE"). In the rebus, letters can be in the background. It should be read with the prefix "behind". If the letters are located one in another, then the prefix “c” is added.
Cool Math Games https://www.stepcalculator.com/cool-math-games.html
Mathematical rebuses are usually used to develop logical thinking,
since their solution is built on logical reasoning.
Math problems-jokes The people have long received recognition of joke tasks. They foster development attention and quickness, caution against hasty and unreasonable conclusions. They should not be solved, as usual tasks, using one or another arithmetic action. These tasks encourage

reasoning, thinking, finding an answer, using existing knowledge. To solve them, it is necessary to show more resourcefulness, ingenuity, sense of humor. Consider some joke tasks and try to identify the causes of erroneous decisions and explain right answers.

1. "3 comrades went to school for classes in the second shift and met two more comrades students of the first shift. How many comrades went to school? Some students get used to highlight so-called support tasks in the text words (for example: else, total), remember numerical data, a problem question, but insufficiently attentive to the entire text characterizing the situation, outlined in the task. And then, relying only on individual features inherent simple tasks to find the sum, they come to the wrong answer (5 comrades).

2. "What is heavier a kilogram of cotton wool or a kilogram of nails?"

From life experience, we know that nails are heavy, and cotton wool is light. Therefore on the question is all answered: "Nails are heavier than cotton." It completely falls out of attention that and nails and cotton wool per kilogram. If such a mistake is made, then you can retell the task is different: "How many 1 kg of nails