Summary of basic operations

Year	Field of study, subject	Subject connections
3.	Mathematics	Digital culture

The purpose and didactic tasks of the lesson

Practicing basic operations. Developing verbal and written arithmetic skills.
Developing algorithmic thinking.

The effect of the clock

Students independently apply the knowledge acquired in previous lessons.
Setting tasks helps develop self-reflection, set realistic goals, and create strategies. Their teamwork, reasoning, and consensus-building skills develop.

Tools and resources used

👍	State curriculum, local curriculum, textbooks
👍	INDI robot and color code cards
👍	INDI robot track, task cards

Occupation plan

5 minutes	Tuning in – flash questions with number cards	• Motivation, playful repetition, frontal work style. • Tool: Number cards. • Motivation, energizing
5 minutes	INDI robot introduction, task description	• Description of the task, group formation • Illustration, explanation, frontal work form. • Equipment: INDI robot, track. • Teacher guidance.
30 minutes	Group robot track task	• Strategy creation, INDI programming, solving practice tasks • Equipment: INDI robot, colored sheets, worksheets. • Group work.
5 minutes	Joint verification of solutions	• Reflection, reinforcement, frontal work form. • Evaluation, praise.

Methodological advice for designing a robot track

Game description

The track

A field is shared by 3 teams: red, yellow, green. The three teams agree on which team starts from which corner of the field.

In the middle of the field, we placed a red, yellow, and green card marked 1, 2, and 3, respectively.

Each card has a set of basic operations practice tasks. Card 1 has the easiest ones, which are worth fewer points, and card 3 has the most difficult ones, which are worth the most points.

Game progress

The first task of the team members is to create a strategy: do they start solving the task with the easier or the more difficult set of tasks? Do they choose the task that is definitely achievable but worth fewer points, or do they take a risk and choose a more difficult task in the hope of gaining more points.

After making a decision, they must guide the INDI robot from their corner to the selected card of their own color. If INDI reaches the correct card, the team can solve the task.
They can then choose again until the time runs out.