

## The path of fractions

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

### The purpose and didactic tasks of the lesson

Systematization, application control

Deepening and consolidating knowledge about the concept and shape of fractions. Comparing fractions to a given number, ordering fractions. Sorting fractions with the same value. Students should be able to solve problems independently.

### The effect of the clock

With this track, students can playfully practice basic operations, either individually or in groups. Thanks to the color-coded controls of the INDI toy car, the track can be changed, so children can even create different tracks themselves.

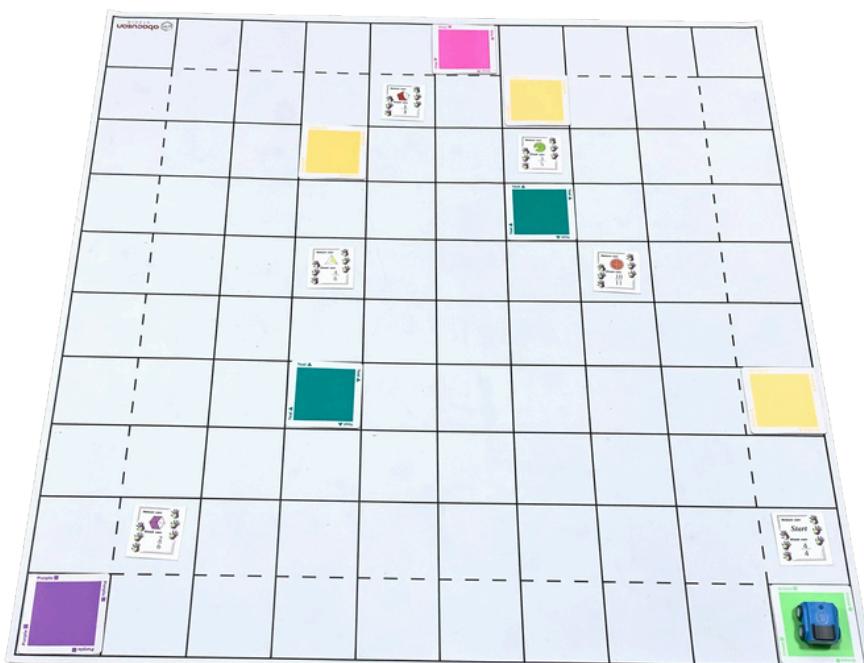
Using the different fraction cards, they can practice in novel situations and in an experiential way, which helps consolidate their knowledge.

### Tools and resources used

	<i>State curriculum, local curriculum, textbooks</i>
	<i>INDI robot and color code cards</i>
	<i>INDI robot track, worksheets, fraction cards</i>

## Occupation plan

10 minutes	<b>Tuning in, repeating fractions</b>	<ul style="list-style-type: none"> <li>Recalling associations related to fractions. Systematizing knowledge</li> <li>Explanation, illustration, frontal work.</li> <li>Tools: Fraction cards, board (digital or physical)</li> </ul>
30 minutes	<b>Group robot trajectory task with operations</b>	<ul style="list-style-type: none"> <li>Exploration, cooperative learning, pairs or groups of 3. Robot control, problem solving. Experiential learning, problem solving.</li> <li>Equipment: INDI robot, colored sheets, worksheet, course plan, fraction cards.</li> </ul>
5 minutes	<b>Discussion of solutions, reflection</b>	<ul style="list-style-type: none"> <li>Joint evaluation of task solutions. Joint evaluation, discussion. Feedback.</li> <li>Tools: Solution sheet, board.</li> </ul>



## Methodological advice for creating a robot track

### INDI WORKSHEET – The Path of Fractions

Name: \_\_\_\_\_ Date: \_\_\_\_\_

#### 1. Ascending order

Place the colors on the board so that INDI moves through the numbers shown on the board in ascending order!

1/3, 1/4, 2/3, 3/4, 1/2 Write down which colors INDI traveled on:

Colors: \_\_\_\_\_

#### 2. Value search

INDI should move along the board in such a way that after the fraction, he goes to the card of the figure that represents him!

#### 3. Finding an integer

Find fields that add up to a whole number (e.g.  $1/2 + 1/2 = 1$ ) and move through them INDI!

For example:  $1/3 + 2/3$  or  $3/4 + 1/4$  Write down the fields you chose:

#### INDI robot track design:

INDI robot pairs cards that represent the same fractional amount in different forms.

You must move through the broken cards placed on the board in such a way that you always touch the cards belonging to the same pair one after the other. An important preparatory activity for completing the board is to record the rules regarding the cards that belong together.

##### 1. As a differentiation opportunity

we can adapt the selected cards to the students' abilities and knowledge

we can increase or decrease the number of cards placed on the field

- Instead of 2, the robot must collect 3 or 4 related cards (e.g. fractions)
- cards must be played in ascending/descending order
- we can limit the cards that can be touched (e.g. certain units of measurement cannot be touched)
- we can limit the number and type of color code sheets that can be used
- The task can be combined with language learning (e.g. say a sentence that contains the given fraction).

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