

# THE FIVE LOAVES THE DECISION (T4)

S1  
T4  
D6  
L1 P3

## Focus on:

- Computational thinking – life skills (D6)



### Task3: How can a conflict be solved?

Students talk about arguing, quarreling and making up.

They dramatize and act out the given situation.

#### Focus on

- Critical thinking
- Social skills
- Civics

You can use the Act it out! cards from the Idea Bazaar

#### Developmental fields:

##### In focus:

- Social competences
- Text comprehension

##### In addition:

- Attention concentration
- Life skills
- Talent development

#### How to manage output:

Take a video record of the dramatized situation!

### Idea Bazaar – some ideas:

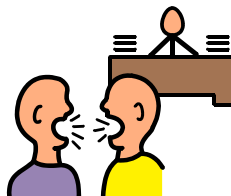
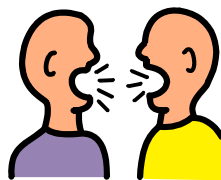
- Find out and dramatize a situation where you quarrel with your friend!
- Dramatize a situation with 2 different aspects: when you quarrel, and when you make up!
- Imagine and dramatize a court hearing!


**For details of the different solutions, see the Idea sheets!**

#### Cut out the situation cards!

**Choose the focus that you want the children to deal with! Give them the appropriate situation card!**


**Help them to build the situation if needed!**







Co-funded by the Erasmus+ Programme of the European Union

## THE FIVE LOAVES



S1 T1  
D5 L1

 **Some ideas- conflict solving** 

---

**Act it out!**

What do you usually argue about?  
What did you quarrel about last time?  
How did you solve it?  
Were you satisfied with the solution?

**Find out and dramatize a situation where you quarrel with your friend!**

---

**Act it out!**

Generally, do you quarrel or moderate?  
How do you usually make peace with others?  
Do you usually ask for help to solve the debate?

**Find out and dramatize a situation with 2 different aspect: when you quarrel, and when you make peace!**

**What was the difference in your behaviour in the two situation?**

---

**Act it out!**

What does a court and a pleading mean?  
Who are the participants of a pleading? What is their role?  
You can find the informations in the attached text.

Imagine and dramatize a pleading at the Court!

# THE FIVE LOAVES THE DECISION (T4)

S1  
T4  
D6  
L2 P3



So off they went, intent to take their quarrel to the law. And when they came to a place where there was a courthouse, they went before the judge and told their story, each giving their own version. The judge, after listening to their case attentively, ask Stefan: "So you are not content with the share of money that loan suggested, my man?"

"No, your Honor," said the discontented Stefan. "We had no intention of taking the money of the stranger for the bread we gave him; but since he gave us some, we should have divided it equally. That is my idea on what is just."

"If it's a question of justice" said the judge, "then be good enough to return a coin to loan."

"Well, that astonishes me your Honor," said the discontented Stefan. "I came here to see justice done, and I find that your Honor, who knows the law, is making me even more puzzled. If the last judgement is to be like that, then Heaven help us!"

"So it seems to you," the judge said quietly, "but you will see that is not the case. Did you have two loaves?"

"Yes. I had two."

"Did Stefan had three loaves?"

"Yes. He had three."

"Just a moment ago you told me that you all ate the same amount; is that right?"

"That is right your Honor"

"Good. Now let us get it all clear, so we might know how much bread each of you ate: let us say that each loaf was divided into three equal parts, how many pieces did you have, for you, Stefan, had two loaves to begin with?"

"I had six pieces, your Honor"

"And you, loan, who had three loaves to begin with?"

"He had nine pieces, your Honor."

"Now how many does that make? Nine and six?"

"Fifteen pieces, your Honor"

"How many men ate those fifteen pieces of bread?"

"Three men, your Honor."

"Now, try to remember how many pieces you had."

"Six, your Honor."

"But did you eat six?"

"Five, your Honor."

"And how many were left over?"

"Only one piece, your Honor."

"Do you remember how many pieces your companion had?"

"Nine, your Honor."

"And how many did he eat?"

"Five, the same as I did."

"And how many had he left?"

"Four, your Honor."

"Good! Now let us get this straight. You mean that you had only one piece left over, while your companion had four pieces left; now, does one piece for you and four pieces from your friend's make five pieces together?"

"Exactly five, your Honor."

"Is it true that the stranger ate those five pieces and gave you five pennies for them?"

"Yes, that is so, your Honor."

"So only one coin was due you, for you, Stefan, had only one piece left over, and it was just the same as selling it for one coin. As for your friend, loan ought to have four coins because he had four pieces left over. So now, be so good as to return one coin to your companion. And if you feel that that is unjust then go to God and see if He will make a different judgement." Stefan, seeing there was no other solution, gave back a penny to his companion, very reluctantly, thanked the judge and went off blushing.

loan, however, astonished at the verdict, thanked the judge and went off saying:

"If there were judges like that everywhere who do not stand nonsense, then those who are in the wrong would never appeal to the law. And the so-called lawyers, having no longer any means of making a living from their talking, would either do honest work, or else die of hunger. And good people would live in peace!"

### Focus on:

- Computational thinking – life skills (D6)

### Goals of the lesson:

- text comprehension
- problem solving
- decision making
- organizing group work

### Main features and interactions of the characters

Character	Features	Interactions
loan	Argues, divides the coins and breads	Move together, argue with each other  Fall silent when the Judge reprimands them
Stefan	Argues, divides the coins and breads	
Judge	Divides the coins and breads	Reprimands the arguers



### Suggested materials

- ArTeC Blocks (at least the 112 pcs set)
- Arts&crafts materials
- White paper, pencil, folder
- Vignettes in different colors

# THE FIVE LOAVES THE DECISION (T4)

S1  
T4  
D6  
L2 P4



### Focus on:

- Computational thinking - Life skills (D6)

### Goals of the lesson:

- text comprehension
- problem solving
- decision making
- organizing group work



### Suggestions for procedure:

- Each student should try to draw a scheme to summarize the logical arguments by loan, Stefan and the Judge. Drawings are extremely useful because they visually represent situations. You can suggest to create a series of vignettes, to clearly depict the several steps followed by the Judge.
- A discussion is also important: what could be a fair method to divide the money between loan and Stefan? Involve ethics, logics and mathematics
- Three roles are required: one working on creating a judge, one working on creating the environment (a court room), one working on adding features to the previously prepared characters (sound, lights,..). Students could apply themselves for the preferred task

### Specific suggestions for inclusion:

- Generally, after disputing people tend to avoid getting in contact with the opponent. Make students reflect on the acceptance of defeats, being a possible feedback for improvement, as impaired people (should) do with their impairment



Stefan  
loan  
Judge  
Bread division

Debate  
Call for order in the court  
Divide coins/breads

Parts and settings of the court room, characters of the court hearing





The main actions of the story  
Divide the text segment into pieces  
Make a list about things needed  
Media files needed

### How to use the character card:

Each student fills in his/her own Character card:

- writes the name of the character
- their features, movements, reactions, etc.
- collects the elements of the environment, other accessories, things to be built
- thinks over the phases, tools and materials of the robot's building

**Students can use more pieces of each part of the Character card if needed!**

	Your name _____
Build	_____
	Your name _____
Be attentive, your robot should be able to:	_____
	Your name _____
There also should be:	_____
	Your name _____
Think over:	_____

# THE FIVE LOAVES THE DECISION (T4)

S1  
T4  
D6  
L3-4  
P4



## Suggested materials

- ArTeC Blocks (at least the 112 pcs set) and ArTeC robotics set (as maximum of 2 Studuino motherboards, 3 servo motors, 10 LEDs – 5-5 of two colors, 3 Touch sensors, 1 Buzzer)
- Pictures of court rooms
- Mindmap or Chart draft template
- Storyline template
- pencil

## Focus on:

- Computational thinking – life skills (D6)

## Goals of the lesson:

- fine motor skills,
- problem solving,
- decision making

## How to fill in the Robotic card?

- Choose robot's „activity” and its programming complexity according to the Character task card, the developmental aim and the programming level that fits to the child's skills!
- More Robotic cards can be filled in if needed (for clarification or for differentiation).

## Suggestions

### Bread division

- Use the scheme of bread division from the last lesson to plan the dividing robot.
- Model it with blocks before planning the robot.
- Brainstorm possible visualisations.

### The judgement

- List the features of the judge (dress, tools, behaviors, functions) and the environment (a court room)
- Use the knowledge gathered during the last lesson
- Talk about the interactions during a trial (who can speak, how can they debate, etc.)

Arm  
Mouth  
Makes noise  
Shows the bread's division

**Robotic task card**

Your name \_\_\_\_\_

Build a robot that can move it's \_\_\_\_\_

Use actuators and sensors for building:  
 \*Senses\* are green  
 \*Actions\* are blue  
 Choose the needed parts!  
 Check the boxes!

<input type="checkbox"/> Stepper motor	<input type="checkbox"/> Servomotor	<input type="checkbox"/> DC motor	<input type="checkbox"/> Sound sensor	<input type="checkbox"/> Light sensor
<input type="checkbox"/> Accelerometer	<input type="checkbox"/> Infrared sensor	<input type="checkbox"/> Touch sensor	<input type="checkbox"/> Electronic buzzer	<input type="checkbox"/> LED

Build and program so that the robot \_\_\_\_\_

Use the Technical Corner for robot helping trials!

## Related topics in the Technical corner

- Programming servo motor
  - Moving the arm to a given angle (3.a)
  - Repeated movement of the arm for a number of times (3.b)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Testing and programming IR Photorelector sensor (4.a, 4.b, 4.c)
- Using LED (5.a, 5.b, 5.c)
- Using Buzzer (6.a, 6.b)
- Using variables (11.a)
  - Conditional branch (11.2)
  - Counting (11.c)
- Using functions (12.a)

Show the breads' and coins' division by building them from ArTeC Blocks  
Build the court room from ArTeC blocks

PROG1

Show the breads' and coins' division by building them from ArTeC Blocks and LEDs  
The debaters and the judge can raise and let down their arms

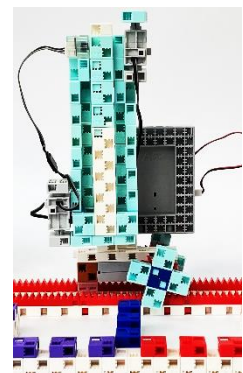
PROG2

Show the breads' and coins' division by building them from ArTeC Blocks and LEDs  
The two figures can debate by movements and the judge can demand silence

PROG3

The robot can distribute and count the coins  
The two figures can debate by movements and the judge can demand silence repeatedly

PROG4





# THE FIVE LOAVES THE DECISION (T4)

S1  
T4  
D6  
L3-4  
P5

## Ideas for robots on different programming levels

Show the breads' and coins' division by building them from ArTeC Blocks  
Build the court room from ArTeC blocks

PROG1

Show the breads' and coins' division by building them from ArTeC Blocks and LEDs  
The debaters and the judge can raise and let down their arms

PROG2

Show the breads' and coins' division by building them from ArTeC Blocks and LEDs  
The two figures can debate by movements and the judge can demand silence

PROG3

The robot can distribute and count the coins  
The two figures can debate by movements and the judge can demand silence repeatedly

PROG4



## Bread and coin division

### P1 Make a visualisation of dividing the bread and the coins

How to build:

- Use cubes of different colors for the breads
- Make a big enough bread (so that you can take them apart into 3 parts each)!

### P2 Make a visualisation of the coins' division

How to build:

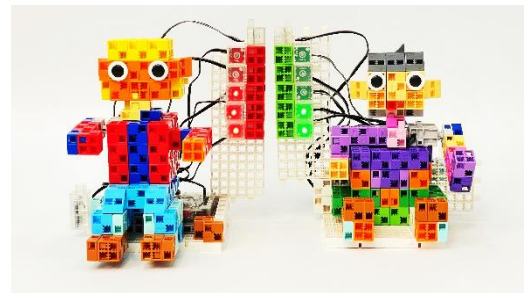
- Use cubes for the bread. Divide them as loan and Stefan did.
- LED lights are good for guiding attention!
- Use 2 robots with 5-5 LEDs and 1 touch sensor. The first robot displays loan's coins, the second robot displays Stefan's coins.
- For both robots, the first push of the touch sensor shows how loan would divide the coins, the second shows how Stefan would, the third shows the judgement.

### P3 Make a visualisation of the bread dividing

- Use cubes for the bread and LED for the coins. Divide the bread as loan and Stefan did.
- LED lights are good for guiding attention!
- Use 1 robot with 10 LEDs of 2 colors and 1 touch sensor. The 2 colors show loan's and Stefan's coins.
- The first push of the touch sensor shows how loan would divide the coins, the second shows how Stefan would, the third shows the judgement.

### P4 Coin dividing robot

- Build a robot, that can sort the cubes into two groups
- The robot should count the cubes it sorts into either group.
- Connect 1 touch sensor to your robot - the first push of the touch sensor shows how loan would divide the coins, the second shows how Stefan would, the third shows the judgement.



## Argument in the court

### P1 Build the environment and the people in the court

How to build:

- Use cubes for building the environment, props and characters

### P2 Arguers and the judge in the court

Build 2 arguers and the judge

All of them should be able to move their arms up and down with servo motors

Use touch sensors to start their movement (like in a puppet show)

### P3 Arguers should stop talking as judge demands

- Debate can be shown by movement of arms and/or head, AND the voice of the debaters
- Periodic up and down movement of the arms, shaking the head a number of times with servo motors, and a buzzer to make the debaters loud
- The two arguers are connected to the same motherboard, while the judge is connected to another
- The judge bangs his gavel on a touch sensor after a certain time – this causes the buzzers to stop

### P4 Arguers should stop talking as judge demands

- Like in P3, but the scene doesn't end when they fall silent. After the judge bangs his gavel, they fall silent, then start arguing again shortly after
- The judge bangs his gavel, one more time than before.
- This continues until the robots are turned off.