

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L1 P3

Focus on:

• Creativity, talent development (D9)



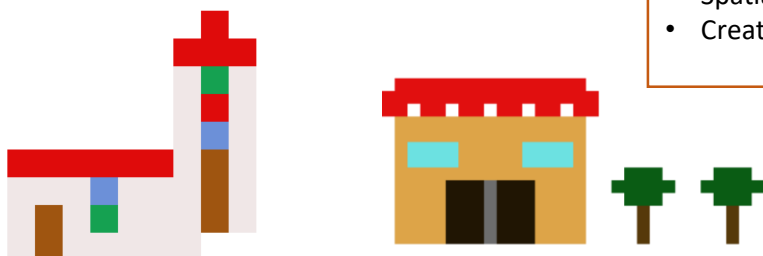
Task1: What does the landscape look like?

Students create elements of the landscape of Iberian peninsula, the villages, the mountains, the coast, the ocean. They create plants, animals, figures and buildings as well. The distribute cities and villages on the map.

Every solution is good!

Any kind of tool and material can be used!

You can use the ideas and list of materials from the Idea Bazaar, come up with your own ideas or just let the children be creative.



Idea Bazaar – some ideas:

- Building out of ArTeC Blocks, using Artec mechanisms
- Building environment out of recycled materials
- Drawing
- Creating computer graphics

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

Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Attention concentration
- Subject concentration – Natural Sciences
- Talent development



Task2: How do humans and animals move? How do vehicles with zero, two and four wheels move?

Students consider how humans move and how different animals move, depending on where they live, and how many legs they use.

Which animals are good for transporting people and objects, and why? Why did people use donkeys and horses in the past?

Every solution is good!

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Idea Bazaar – some ideas:

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- Creating computer animation using Pivot animator, Scratch or animated GIFs

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Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Attention concentration
- Subject concentration – Drawing, IT
- Talent development



How to manage output:

Record videos with different characters and means of transport traveling across the peninsula or the continent. Take screenshot videos of animations.

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L1 P4

Focus on:

• Creativity, talent development (D9)



Task3: How to use arguments in a trial? How to convince people of your ideas?

The conversation with the Virgin Mary and St. James, the preaching process can be used to talk about argumentation techniques, convincing people, and teaching. How to do it, what language to use and They dramatize and act out the given situation. You can use the **Act it out! cards** from the Idea Bazaar



Idea Bazaar – some ideas:

- Dramatize a situation in court during trial
- Dramatize a situation with 2 different aspects: when you accuse and when you defend. Think of argumentation!
- Imagine being the defendant. What happens when you win and when you lose?

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

Developmental fields:

In focus:

- Social competences
- Critical thinking
- Civics
- Text comprehension

In addition:

- Attention
- concentration
- Life skills
- Talent development

How to manage output:

Record a video acting out the situations.

Task4: Learn about the nature and the sites of the Iberian Peninsula! Search and calculate the routes of the Camino de Santiago!

Students search the internet to collect and present informations about the sights, Students measure the total distance, then divide it into stages, choose stops (cities, shelters, places to eat, etc.) Calculate time needed to get from point A to point B with specific means of transport, total time needed to accomplish the goal etc.

Every solution is good!

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Idea Bazaar – some ideas:

- Building out of ArTeC Blocks
- Printing out the map of Europe/Iberian Peninsula (large scale or smaller)
- Cutting out and building the special die
- Choosing, counting routes
- Creating presentations, posters

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

Developmental fields:

In focus:

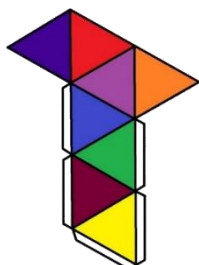
- Logical thinking
- Mathematical competences
- Spatial orientation
- Presentation skills

In addition:

- Subject concentration
- Natural Sciences, Maths, Arts
- Creativity
- Talent development

How to manage output:

Record videos with different characters and means of transport traveling across the peninsula or the continent



THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L2 P3



Focus on:

- Creativity, talent development (D9)

Goals of the lesson:

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

While he was in the ancient Roman city of Zaragoza, along with his first 7 disciples, the Virgin Mary appeared to him. She asked him to travel back to Jerusalem to accompany her. He decided to go back to Jerusalem, leaving the peninsula. When he arrived back to his homeland, he was arrested during a sermon. King Herod Agrippa, who was fighting the Christian faith and all the Apostles of Jesus, ordered St. James to be decapitated.

Main features and interactions of the characters

Character	Features	Interactions
St. James	Walks, travels by boat	Preaches, talks to the Virgin Mary, to his disciples, to King Herod, is condemned to death
7 disciples	Walk, travel	Listen and learn from St. James, preach themselves
Virgin Mary	Moves, travels	Speaks to St. James, convinces him to go to Jerusalem
Herod	Walks	Condemns Saint James to death, leads trial

How to use the character card:

Each student fills in their 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!

St. James
Disciples
Virgin Mary
Herod
Boat

Walk
Sit
Carry things

Landscape on a map
Shores, trees, houses

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

Suggestions

Discussion topics:

- Why do the students think
 - St. James decided to go back? Was it a good decision?
 - Herod decided to punish St. James?
- Have them act out the trial, and think of possible arguments in defence and against St. James.

Civic, social studies:

- Talk about the scene, participants, interactions during a trial (who are the participants, what is the courtroom like, who can speak, how can they debate, etc.)
- Collect information about the historical situation of Herod's time and the political aspects of the appearance of Christianity.

Suggested materials

- ArTeC Blocks (at least the 112 pcs set)
- Act it out! cards
- Pencil, paper, cardboard, glue

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L3-4
P4



Suggested materials

- ArTeC Blocks (at least the 112 pcs set) and ArTeC robotics set (1 or 2 Studuino motherboards, 2 DC motors, wheels, 2 servo motors, 2 Touch sensors, 2 IR Photoreflectors, 1 Buzzer, 1 Sound sensor, 3 LEDs)
- Mindmap or Chart draft, Storyline
- Character cards and Robotic task card template
- Pencil

Focus on:

- Creativity, talent development (D9)

Goals of the lesson:

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

How to fill in the Robotic card?

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

Suggestions

- Collect depictions of saints and the Virgin Mary in art (paintings, sculptures)
- Collect information about clothing in Europe and Palestine, and the Roman architecture of the time of St. James
- Refresh what was learned about trials during the previous lessons

Virgin Mary
Light her halo

King Herod
Move his arm
Give sound
St James
Approach Herod

Related topics in the Technical corner

- Programming DC motor
 - Winding the motor until the sensor detects change (4.b, 4.c)
- Programming servo motor
 - Moving the arm up and down (3.b)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Using LED
 - Lighting and blinking the LED (5.a, 5.b)
- Using Buzzer (6.a, 6.b)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using an IR Photoreflector for detecting an object (7.d, 7.e)
- Using Sound sensor
 - Testing the Sound sensor and activating the robot with clapping 9.a, 9.b)
- Random numbers (10.a)



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!

 Robotics	 Servomotor	 DC motor	 Sound sensor	 Light sensor
 Accelerometer	 Infrared sensor	 Touch sensor	 Electronic buzzer	 LED

Build and program so that the robot _____

Use the Technical corner for robotics programming materials!

The Virgin Mary's halo is lit
King Herod can move his head, and his arm with a scepter

PROG1

The light of the Virgin Mary's halo is controlled by the student
King Herod and St. James debate – puppet show

PROG2

The Virgin Mary's halo blinks, controlled by the student
King Herod and St. James debate – puppet show

PROG3

The LEDs in the Virgin Mary's halo are lit in different orders, controlled by the student
King Herod and St. James debate – cooperative robots

PROG4

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L3-4
P5

Ideas for robots on different programming levels

The Virgin Mary's halo is lit
King Herod can move
his head, and his arm
with a scepter

PROG1

The light of the Virgin
Mary's halo is controlled
by the student
King Herod and St. James
debate – puppet show

PROG2

The Virgin Mary's halo
blinks, controlled by
the student
King Herod and St.
James debate – puppet
show

PROG3

The LEDs in the Virgin
Mary's halo are lit in
different orders,
controlled by the
student
King Herod and St.
James debate –
cooperative robots

PROG4



Virgin Mary

P1 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- The LEDs are lit automatically when the robot is switched on

P2 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- 1 Touch sensor is used for controlling the halo
- The LEDs are lit as long as the Touch sensor is kept pressed

P3 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- 2 Touch sensors are used for controlling the halo
- The 3 LEDs begin to blink together when one of the Touch sensors is pushed and stop when the other is

P4 Build the Virgin Mary

- This figure is static
 - Create her halo using 3 LEDs
 - 1 Touch sensor is used for controlling the halo
 - 1 randomly chosen LED is lit up at each press of the Touch sensor
- OR
- The LEDs are lit up one after the other (like a running light) at each press of the Touch sensor



THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D9
L3-4
P6

Ideas for robots on different programming levels

The Virgin Mary's halo is lit
King Herod can move
his head, and his arm
with a scepter

PROG1

The light of the Virgin
Mary's halo is controlled
by the student
King Herod and St. James
debate – puppet show

PROG2

The Virgin Mary's halo
blinks, controlled by
the student
King Herod and St.
James debate – puppet
show

PROG3

The LEDs in the Virgin
Mary's halo are lit in
different orders,
controlled by the
student
King Herod and St.
James debate –
cooperative robots

PROG4



King Herod and St. James on the trial

P1 Build King Herod Agrippa judging

- This figure is static
- Build a figure that can move its arm with a scepter and its head mechanically on axles

OR

- Build a figure that can move its arm automatically up and down by a servo motor when the robot is switched on

P2 Build King Herod Agrippa judging

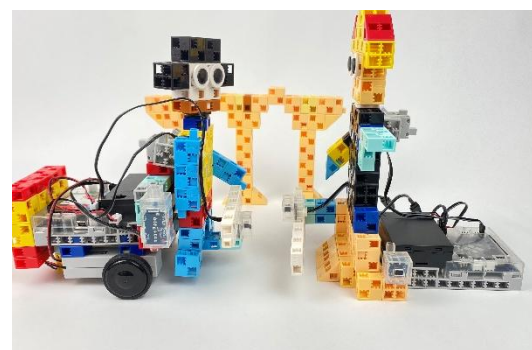
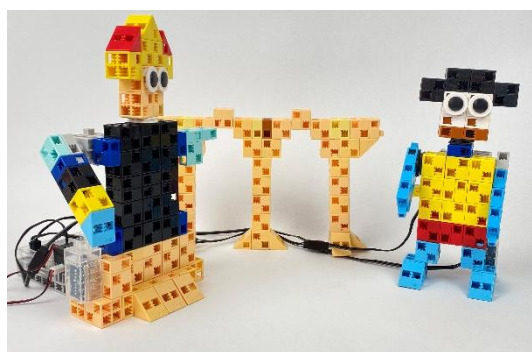
- This figure is static
- Build a figure that can move its arm or scepter up and down by a servo motor
- Use 2 Touch sensors for controlling the movement of the arm: one for rising, one for lowering the arm
- Use 1 Buzzer to make King Herod Agrippa „speak“

P3 Build King Herod Agrippa and St. James debating puppet show

- Build King Herod Agrippa and St. James, with their arms movable by one servo motor each
- Use 1 common motherboard for the two figures
- Join 2 Touch sensors and 1 Buzzer
- 1 Touch sensor should be used to control King Herod's arm and the Buzzer symbolises King Herod's voice
- 1 Touch sensor should be used to control St. James' arm,
- OR
- 1 sound sensor should be used to sense the voice of King Herod and initialize the movement of St. James' arm

P4 Build a dynamic debate of King Herod Agrippa and St. James

- Build a figure of king herod Agrippa that can move its arm or scepter up and down by a servo motor
- Join 1-1 IR photoreflector to both robots, 1 Touch sensor to St. James and 1 Buzzer to King Herod
- The robots should work as follows:
- St. James starts moving towards King Herod at the press of the Touch sensor
- When it gets near to King Herod, both IR-photoreflectors sense the other robot
- St. James stops, both figures begin to move their arms up and down, King herod gives sound with the Buzzer
- After a random number of arm movements, St. James backs up, King Herod stops all activities
- These phases are repeated until the robot is switched off



THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S₂
T₂
D₁₁
L₁ P₃

Focus on:

- Language consciousness (D₁₁)



Task1: What does the landscape look like?

Students create elements of the landscape of Iberian peninsula, the villages, the mountains, the coast, the ocean. They create plants, animals, figures and buildings as well. The distribute cities and villages on the map.

Every solution is good!

Any kind of tool and material can be used!

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- Creating computer graphics

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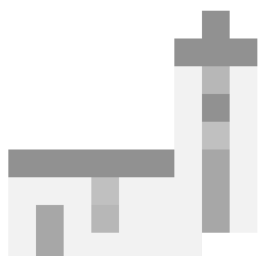
Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Attention concentration
- Subject concentration – Natural Sciences
- Talent development



Task2: How do humans and animals move? How do vehicles with zero, two and four wheels move?

Students consider how humans move and how different animals move, depending on where they live, and how many legs they use.

Which animals are good for transporting people and objects, and why? Why did people use donkeys and horses in the past?

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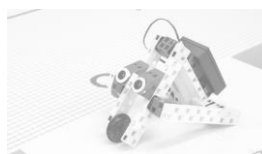
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- Talent development



How to manage output:

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THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
 T2
 D11
 L1 P4

Focus on:

- Language consciousness (D11)



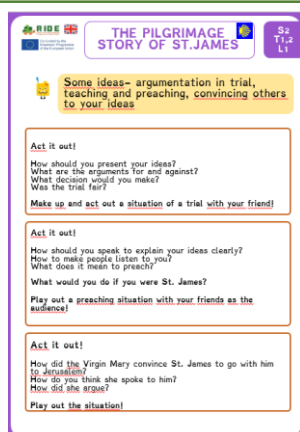
Task3: How to use arguments in a trial? How to convince people of your ideas?

The conversation with the Virgin Mary and St. James, the preaching process can be used to talk about argumentation techniques, convincing people, and teaching. How to do it, what language to use and They dramatize and act out the given situation. You can use the **Act it out! cards** from the Idea Bazaar

Idea Bazaar – some ideas:

- Dramatize a situation in court during trial
- Dramatize a situation with 2 different aspects: when you accuse and when you defend. Think of argumentation!
- Imagine being the defendant. What happens when you win and when you lose?

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



THE PILGRIMAGE STORY OF ST. JAMES

Some ideas- argumentation in trial, teaching and preaching, convincing others to your ideas

Act it out!
 How should you present your ideas?
 What are the arguments for and against?
 What decision would you make?
 Was the trial fair?

Make up and act out a situation of a trial with your friend!

Act it out!
 How should you speak to explain your ideas clearly?
 How to make people listen to you?
 What does it mean to preach?
 What would you do if you were St. James?

Play out a preaching situation with your friends as the audience!

Act it out!
 How did the Virgin Mary convince St. James to go with him to Jerusalem?
 How do you think she spoke to him?
 How did she argue?
 Play out the situation!



Developmental fields:

In focus:

- Social competences
- Critical thinking
- Civics
- Text comprehension

In addition:

- Attention concentration
- Life skills
- Talent development

How to manage output:

Record a video acting out the situations.

Task4: Learn about the nature and the sites of the Iberian Peninsula! Search and calculate the routes of the Camino de Santiago!

Students search the internet to collect and present informations about the sights, Students measure the total distance, then divide it into stages, choose stops (cities, shelters, places to eat, etc.) Calculate time needed to get from point A to point B with specific means of transport, total time needed to accomplish the goal etc.

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- Printing out the map of Europe/Iberian Peninsula (large scale or smaller)
- Cutting out and building the special die
- Choosing, counting routes
- Creating presentations, posters

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

Developmental fields:

In focus:

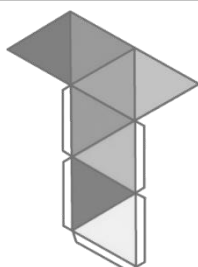
- Logical thinking
- Mathematical competences
- Spatial orientation
- Presentation skills

In addition:

- Subject concentration – Natural Sciences, Maths, Arts
- Creativity
- Talent development

How to manage output:

Record videos with different characters and means of transport traveling across the peninsula or the continent



THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D11
L2 P3



Focus on:

- Language consciousness (D11)

Goals of the lesson:

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

While he was in the ancient Roman city of Zaragoza, along with his first 7 disciples, the Virgin Mary appeared to him. She asked him to travel back to Jerusalem to accompany her. He decided to go back to Jerusalem, leaving the peninsula. When he arrived back to his homeland, he was arrested during a sermon. King Herod Agrippa, who was fighting the Christian faith and all the Apostles of Jesus, ordered St. James to be decapitated.

Main features and interactions of the characters

Character	Features	Interactions
St. James	Walks, travels by boat	Preaches, talks to the Virgin Mary, to his disciples, to King Herod, is condemned to death
7 disciples	Walk, travel	Listen and learn from St. James, preach themselves
Virgin Mary	Moves, travels	Speaks to St. James, convinces him to go to Jerusalem
Herod	Walks	Condemns Saint James to death, leads trial

How to use the character card:

Each student fills in their 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!

Suggestions

Discussion topics:

- Why do the students think
 - St. James decided to go back? Was it a good decision?
 - Herod decided to punish St. James?
- Have them act out the trial, and think of possible arguments in defence and against St. James.

Civic, social studies:

- Talk about the scene, participants, interactions during a trial (who are the participants, what is the courtroom like, who can speak, how can they debate, etc.)
- Collect information about the historical situation of Herod's time and the political aspects of the appearance of Christianity.


 Your name _____
 Build _____
 ----- ✂ -----


 Your name _____
 Be attentive, your robot should be able to: _____
 ----- ✂ -----


 Your name _____
 There also should be: _____
 ----- ✂ -----


 Your name _____
 Think over: _____
 ----- ✂ -----

St. James
The disciples
People from peninsula
Boat
Donkey or horse

Move, ride a horse/donkey
Walk, follow St. James, travel, sit, stand, ride a donkey
Walk, sit
Move around peninsula, carry things and people

Houses
Trees
Objects on maps

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

Suggested materials

- ArTeC Blocks (at least the 112 pcs set)
- Act it out! cards
- Pencil, paper, cardboard, glue

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

S2
T2
D11
L3-4
P4



Suggested materials

- ArTeC Blocks (at least the 112 pcs set) and ArTeC robotics set (1 or 2 Studuino motherboards, 2 DC motors, wheels, 2 servo motors, 2 Touch sensors, 2 IR Photoreflectors, 1 Buzzer, 1 Sound sensor, 3 LEDs)
- Mindmap or Chart draft, Storyline
- Character cards and Robotic task card template
- Pencil

Focus on:

- Language consciousness (D11)

Goals of the lesson:

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

How to fill in the Robotic card?

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

Suggestions

- Collect depictions of saints and the Virgin Mary in art (paintings, sculptures)
- Collect information about clothing in Europe and Palestine, and the Roman architecture of the time of St. James
- Refresh what was learned about trials during the previous lessons

Virgin Mary
Light her halo

King Herod
Move his arm
Give sound
St James
Approach Herod

The name of my robot: _____

The parts I need for my robot:

Motor	Servo	Touch sensor	IR Photoreflector	Buzzer	Sound sensor	LED
☐	☐	☐	☐	☐	☐	☐

Choose the parts you need. Check off what you use!

Blue action
Green sensor
Pink resource
support materials
in the Technical
Corner!

This is how I build and program my robot:

What do I see?	What is it doing?	What does it say?	What does it do?	What does it say?	What does it do?

This is how my robot will work: Write it in complete sentences using the table above!

Related topics in the Technical corner

- Programming DC motor
 - Winding the motor until the sensor detects change (4.b, 4.c)
- Programming servo motor
 - Moving the arm up and down (3.b)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Using LED
 - Lighting and blinking the LED (5.a, 5.b)
- Using Buzzer (6.a, 6.b)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using an IR Photoreflector for detecting an object (7.d, 7.e)
- Using Sound sensor
 - Testing the Sound sensor and activating the robot with clapping (9.a, 9.b)
- Random numbers (10.a)

The Virgin Mary's halo is lit
King Herod can move his head, and his arm with a scepter

PROG1

The light of the Virgin Mary's halo is controlled by the student
King Herod and St. James debate – puppet show

PROG2

The Virgin Mary's halo blinks, controlled by the student
King Herod and St. James debate – puppet show

PROG3

The LEDs in the Virgin Mary's halo are lit in different orders, controlled by the student
King Herod and St. James debate – cooperative robots

PROG4

THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

Ideas for robots on different programming levels

The Virgin Mary's halo is lit
King Herod can move his head, and his arm with a scepter

PROG1

The light of the Virgin Mary's halo is controlled by the student
King Herod and St. James debate – puppet show

PROG2

The Virgin Mary's halo blinks, controlled by the student
King Herod and St. James debate – puppet show

PROG3

The LEDs in the Virgin Mary's halo are lit in different orders, controlled by the student
King Herod and St. James debate – cooperative robots

PROG4



Virgin Mary

P1 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- The LEDs are lit automatically when the robot is switched on

P2 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- 1 Touch sensor is used for controlling the halo
- The LEDs are lit as long as the Touch sensor is kept pressed

P3 Build the Virgin Mary

- This figure is static
- Create her halo using 3 LEDs
- 2 Touch sensors are used for controlling the halo
- The 3 LEDs begin to blink together when one of the Touch sensors is pushed and stop when the other is

P4 Build the Virgin Mary

- This figure is static
 - Create her halo using 3 LEDs
 - 1 Touch sensor is used for controlling the halo
 - 1 randomly chosen LED is lit up at each press of the Touch sensor
- OR
- The LEDs are lit up one after the other (like a running light) at each press of the Touch sensor



THE PILGRIMAGE STORY OF ST. JAMES

ST. JAMES GOES TO PALESTINE; TRIAL BY KING HEROD (T₂)

Ideas for robots on different programming levels

S₂
T₂
D₁₁
L₃₋₄
P₆



The Virgin Mary's halo is lit
King Herod can move his head, and his arm with a scepter

PROG1

The light of the Virgin Mary's halo is controlled by the student
King Herod and St. James debate – puppet show

PROG2

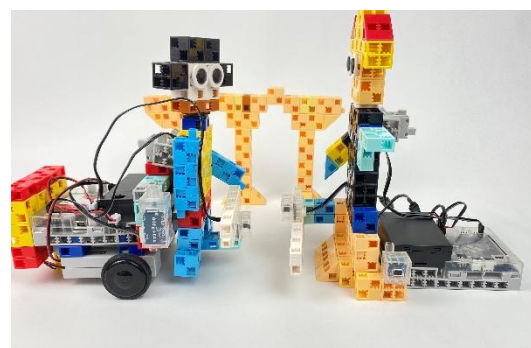
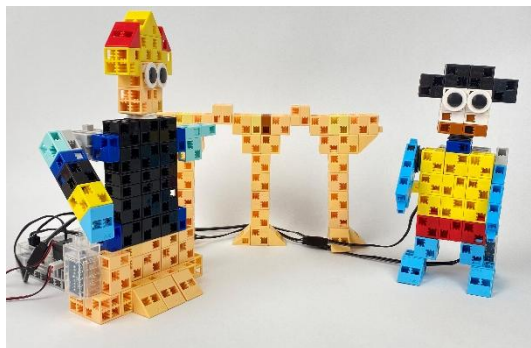
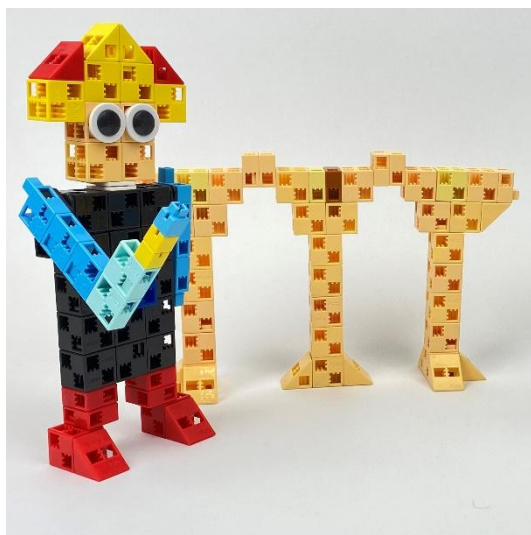
The Virgin Mary's halo blinks, controlled by the student
King Herod and St. James debate – puppet show

PROG3

The LEDs in the Virgin Mary's halo are lit in different orders, controlled by the student
King Herod and St. James debate – cooperative robots

PROG4

King Herod and St. James on the trial



P1 Build King Herod Agrippa judging

- This figure is static
- Build a figure that can move its arm with a scepter and its head mechanically on axles

OR

- Build a figure that can move its arm automatically up and down by a servo motor when the robot is switched on

P2 Build King Herod Agrippa judging

- This figure is static
- Build a figure that can move its arm or scepter up and down by a servo motor
- Use 2 Touch sensors for controlling the movement of the arm: one for rising, one for lowering the arm
- Use 1 Buzzer to make King Herod Agrippa „speak“

P3 Build King Herod Agrippa and St. James debating puppet show

- Build King Herod Agrippa and St. James, with their arms movable by one servo motor each
- Use 1 common motherboard for the two figures
- Join 2 Touch sensors and 1 Buzzer
- 1 Touch sensor should be used to control King Herod's arm and the Buzzer symbolises King Herod's voice
- 1 Touch sensor should be used to control St. James' arm,
- OR
- 1 sound sensor should be used to sense the voice of King Herod and initialize the movement of St. James' arm

P4 Build a dynamic debate of King Herod Agrippa and St. James

- Build a figure of king herod Agrippa that can move its arm or scepter up and down by a servo motor
- Join 1-1 IR photoreflector to both robots, 1 Touch sensor to St. James and 1 Buzzer to King Herod
- The robots should work as follows:
- St. James starts moving towards King Herod at the press of the Touch sensor
- When it gets near to King Herod, both IR-photoreflectors sense the other robot
- St. James stops, both figures begin to move their arms up and down, King herod gives sound with the Buzzer
- After a random number of arm movements, St. James backs up, King Herod stops all activities
- These phases are repeated until the robot is switched off