

THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D10
L1 P3

Focus on:

• Creativity (D10)



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!

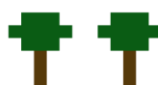
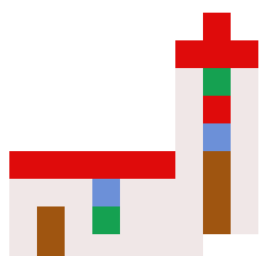
Developmental fields:

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!

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

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

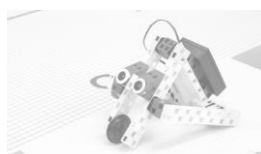
Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Attention concentration
- Subject concentration – 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

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D10
L1 P4

Focus on:

• Creativity (D10)



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!

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
- 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:

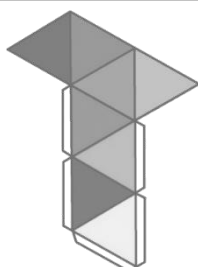
- Logical thinking
- Mathematical competences
- Spatial orientation
- Presentation skills

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

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D10
L1 P5

Focus on:

• Creativity (D10)



Task5: Design the symbols and the passport of the pilgrimage!

Students recreate the Camino the Santiago shell, or design and create their own shell from any available material!

They design and create their own stamps for the different stations and make their own pilgrimage passport.

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.

PILGRIMS CREDENTIALS			
 Name: _____ Surname: _____ Nationality: _____		City: _____ Date: _____	City: _____ Date: _____
		City: _____ Date: _____	City: _____ Date: _____
City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____
City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____

Idea Bazaar – some ideas:

- Materials that can be used: dough, salt dough, pulp, gypsum, etc.
- Printing the passport template out and folding or cutting along the dotted lines.
- Creating potato stamps

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

Developmental fields:

In focus:

- Fine motor skills
- Creativity

In addition:

- Subject concentration – Arts
- Talent development



Task6: How would you communicate in a country where you don't know the language?

Students collect what they would need during a trip to a foreign country.

They create their own sign language for these needs.

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:

- Brainstorming about needs on a trip
- Collecting types of sign languages
- Making the props

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

Developmental fields:

In focus:

- All skills
- Life skills
- Algorithmic thinking
- Attention
- Creativity

In addition:

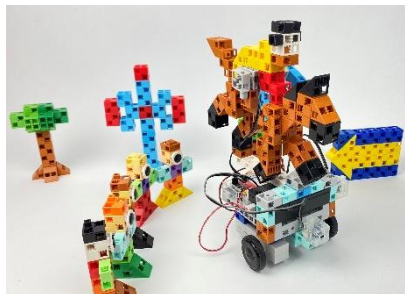
- Subject concentration – Arts, IT
- Talent development



THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D10
L2 P3



Focus on:

- Creativity (D10)

Goals of the lesson:

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

This story is the legend of St. James, who was ordered to preach Christianity in Hispania after the death of Jesus Christ, sometime around the year 40 AD. The apostle arrived from Palestine at a southern port on the Iberian peninsula, making use of the busy Roman maritime traffic. He travelled around the peninsula (Spain and Portugal), talking about Christianity and convincing people to join him. Those who joined him in his travels and decided to help preaching around the region became his disciples. After two years of preaching, he decided to go back to Palestine. His disciples continued his work around Spain.

Main features and interactions of the characters

Character	Features	Interactions
St. James	Walks, moves around the peninsula, sits, stands, rides a horse/donkey	Preaches: explains, convinces, tells stories
The disciples	Walk, follow St. James, travel, sit, stand, ride a donkey	Listen, learn, ask questions, join St. James
People from the peninsula	Walk, sit	Come to sermons, listen and ask questions
Boat, donkey, horse	Move around the peninsula, move on four legs, carry people and objects	Move around the map, carry people and objects, eat and drink and rest

Suggestions

- Have the students discuss how to speak to teach people, or to explain their ideas clearly
- Discuss what ideas were St. James and his disciples transmitting to the people
- Discuss how humans' and animals' movements are made, make some leg and arm movements together and the children should perceive the phases of their own movements
- Build simple figures with movable legs and arms from ArTeC Blocks
- Discuss, what possibilities of transportation were in the middle ages. Have the students compare the time needed to travel the same distance in those times and nowadays

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!


 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)
- Map of Europe
- Storyline template
- pencil

THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D10
L3-4
P4



Suggested materials

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

Focus on:

- Creativity (D10)

Goals of the lesson:

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

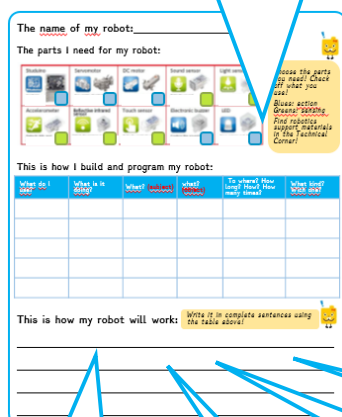
How to fill in the Robotic card?

- 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

- Consider what gestures people use when preaching or trying to convince others
- Collect possibilities for how the robot could be controlled to move along a specific route
- Collect possibilities for detecting when the robot arrives to an object

Arm
Move ahead
Detect obstacle



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 or tail to up and down (3.b)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using an IR Photoreflector for detecting an object (7.d, 7.e)
 - Line tracing robots using 1 IR Photoreflector
 - Labyrinth-traversing robots
- Using Buzzer (6.a, 6.b)
- Using random numbers (10.a)

Static figure: St. James, who can move his arm up and down

PROG1

St. James rides a donkey on a robot, moves forward controlled by the student

PROG2

St. James moves forward until he detects the disciples. There he stops and begins to preach, represented by
a) sound
b) Movements of his arm

PROG3

St. James travels across the peninsula to Zaragoza, moving among houses of villages or following a route. He moves until he meets the Virgin Mary

PROG4

THE PILGRIMAGE STORY OF ST. JAMES PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D1
L3-4
P5

Ideas for robots on different programming levels

Static figure: St. James,
who can move his arm
up and down

PROG1

St. James rides a donkey
on a robot, moves forward
controlled by the student

PROG2

St. James moves
forward until he detects
the disciples. There he
stops and begins to
preach, represented by
a) sound
b) Movements of his
arm

PROG3

St. James travels across
the peninsula to
Zaragoza, moving
among houses of
villages or following a
route. He moves until
he meets the Virgin
Mary

PROG4



St. James

P1 Build St. James preaching

- This figure is static
 - Build a figure that can move its arm mechanically on an axle
- OR
- Build a figure that can move its arm up and down automatically by a servo motor when the robot is switched on

P2 Build St. James travelling and preaching

- Build St. James riding a donkey on a robot with 2 DC motors
- The robot should move forward while a Touch sensor is kept pressed
- On releasing the Touch sensor, the robot should stop and „preach” by moving his arm up and down by a servo motor

P3 Build St. James travelling and preaching to the disciples

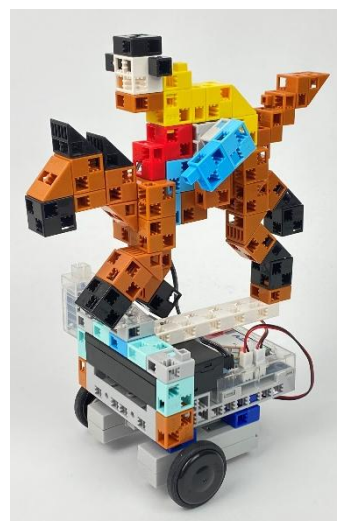
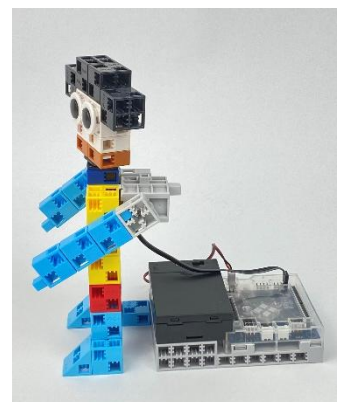
- Build St. James riding a donkey on a robot with 2 DC motors
- 1 IR Photoreflector looks ahead to detect obstacles (disciples)
- The robot should move forward until the IR Photoreflector detects the disciples
- At the disciples it stops and begins to preach
- by Buzzer (random pitches)

OR

- random number of arm waves by servo motor

P4 Build St James travelling across the Iberian peninsula to Zaragoza

- Print out the map of Spain in large scale
- Build St. James riding a donkey on a robot with 2 DC motors
- Build a servo motor into the tail of the donkey
- 1 IR Photoreflector looks ahead to detect obstacles (Virgin Mary)
- The robot should move forward until the IR Photoreflector detects the Virgin Mary and stop there, the donkey should wag its tail
- The robot should move among houses like in a labyrinth (using an IR Photoreflector on each side)
- OR
- The robot should trace a line that symbolises the route across the peninsula (1 IR Photoreflector)



THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L1 P3

Focus on:

•Language communication (D12)



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

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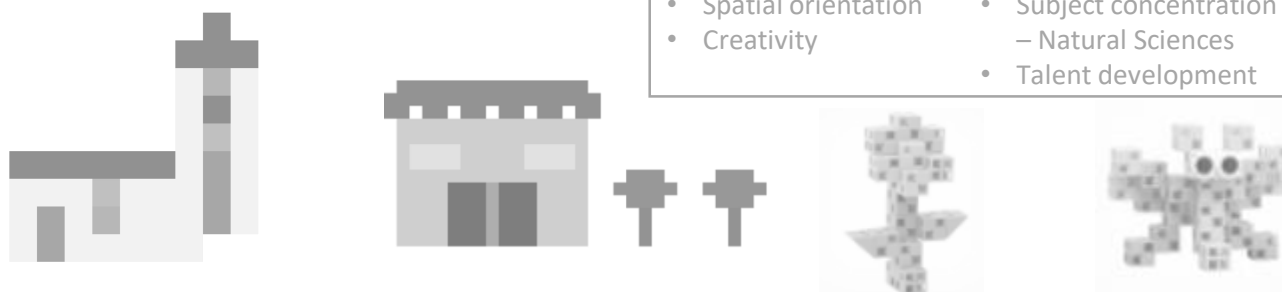
Developmental fields:

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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- Building out of ArTeC Blocks
- Creating computer animation using Pivot animator, Scratch or animated GIFs

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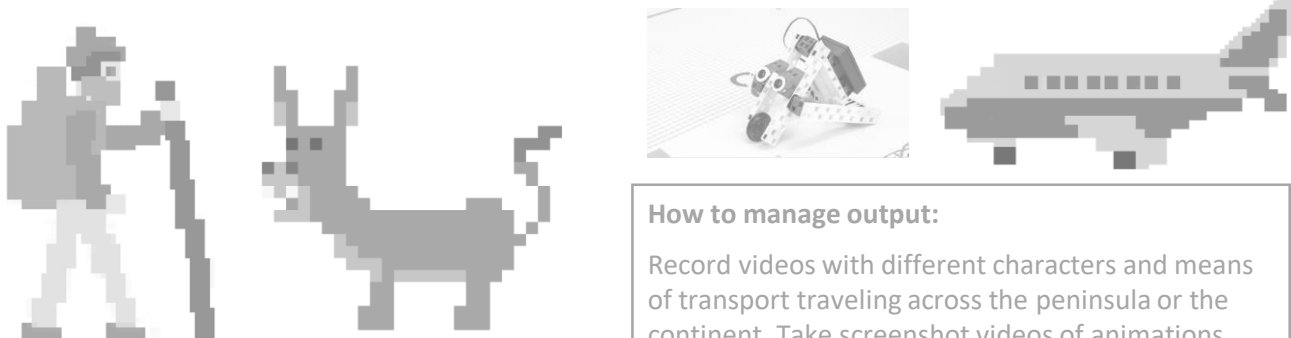
Developmental fields:

In focus:

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- 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

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L1 P4

Focus on:

- Language communication (D12)



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!

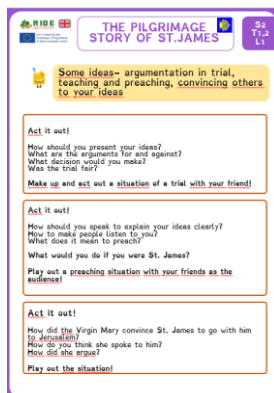
Developmental fields:

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:

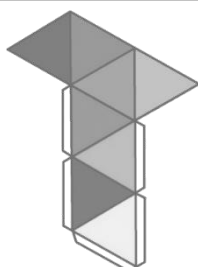
- Logical thinking
- Mathematical competences
- Spatial orientation
- Presentation skills

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

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L1 P5

Focus on:

- Language communication (D12)



Task5: Design the symbols and the passport of the pilgrimage!

Students recreate the Camino the Santiago shell, or design and create their own shell from any available material!

They design and create their own stamps for the different stations and make their own pilgrimage passport.

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:

- Materials that can be used: dough, salt dough, pulp, gypsum, etc.
- Printing the passport template out and folding or cutting along the dotted lines.
- Creating potato stamps

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

Developmental fields:

In focus:

- Fine motor skills
- Creativity

In addition:

- Subject concentration – Arts
- Talent development

PILGRIMS CREDENTIALS			
 Name: _____ Surname: _____ Nationality: _____		City: _____ Date: _____	City: _____ Date: _____
		City: _____ Date: _____	City: _____ Date: _____
City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____
City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____	City: _____ Date: _____



Task6: How would you communicate in a country where you don't know the language?

Students collect what they would need during a trip to a foreign country.

They create their own sign language for these needs.

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:

- Brainstorming about needs on a trip
- Collecting types of sign languages
- Making the props

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

Developmental fields:

In focus:

- All skills
- Life skills
- Algorithmic thinking
- Attention
- Creativity

In addition:

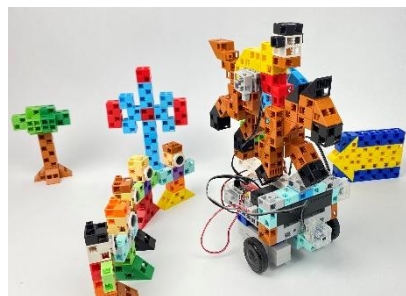
- Subject concentration – Arts, IT
- Talent development



THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L2 P3



Focus on:

- Language communication (D12)

Goals of the lesson:

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

This story is the legend of St. James, who was ordered to preach Christianity in Hispania after the death of Jesus Christ, sometime around the year 40 AD. The apostle arrived from Palestine at a southern port on the Iberian peninsula, making use of the busy Roman maritime traffic. He travelled around the peninsula (Spain and Portugal), talking about Christianity and convincing people to join him. Those who joined him in his travels and decided to help preaching around the region became his disciples. After two years of preaching, he decided to go back to Palestine. His disciples continued his work around Spain.

Main features and interactions of the characters

Character	Features	Interactions
St. James	Walks, moves around the peninsula, sits, stands, rides a horse/donkey	Preaches: explains, convinces, tells stories
The disciples	Walk, follow St. James, travel, sit, stand, ride a donkey	Listen, learn, ask questions, join St. James
People from the peninsula	Walk, sit	Come to sermons, listen and ask questions
Boat, donkey, horse	Move around the peninsula, move on four legs, carry people and objects	Move around the map, carry people and objects, eat and drink and rest

Suggestions

- Have the students discuss how to speak to teach people, or to explain their ideas clearly
- Discuss what ideas were St. James and his disciples transmitting to the people
- Discuss how humans' and animals' movements are made, make some leg and arm movements together and the children should perceive the phases of their own movements
- Build simple figures with movable legs and arms from ArTeC Blocks
- Discuss, what possibilities of transportation were in the middle ages. Have the students compare the time needed to travel the same distance in those times and nowadays

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!


 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)
- Map of Europe
- Storyline template
- pencil

THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L3-4
P4



Suggested materials

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

Focus on:

- Language communication (D12)

Goals of the lesson:

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

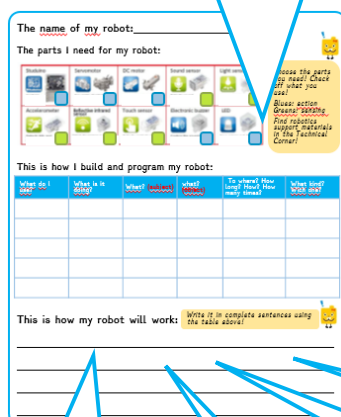
How to fill in the Robotic card?

- 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

- Consider what gestures people use when preaching or trying to convince others
- Collect possibilities for how the robot could be controlled to move along a specific route
- Collect possibilities for detecting when the robot arrives to an object

Arm
Move ahead
Detect obstacle



The name of my robot:

The parts I need for my robot:

This is how I build and program my robot:

This is how my robot will work:

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 or tail to up and down (3.b)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using an IR Photoreflector for detecting an object (7.d, 7.e)
 - Line tracing robots using 1 IR Photoreflector
 - Labyrinth-traversing robots
- Using Buzzer (6.a, 6.b)
- Using random numbers (10.a)

Static figure: St. James, who can move his arm up and down

PROG1

St. James rides a donkey on a robot, moves forward controlled by the student

PROG2

St. James moves forward until he detects the disciples. There he stops and begins to preach, represented by
a) sound
b) Movements of his arm

PROG3

St. James travels across the peninsula to Zaragoza, moving among houses of villages or following a route. He moves until he meets the Virgin Mary

PROG4

THE PILGRIMAGE STORY OF ST. JAMES

PREACHING CHRISTIANITY IN THE PENINSULA (T1)

S2
T1
D12
L3-4
P5

Ideas for robots on different programming levels

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St. James moves forward until he detects the disciples. There he stops and begins to preach, represented by

- sound
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PROG4



St. James

P1 Build St. James preaching

- This figure is static
 - Build a figure that can move its arm mechanically on an axle
- OR
- Build a figure that can move its arm up and down automatically by a servo motor when the robot is switched on

P2 Build St. James travelling and preaching

- Build St. James riding a donkey on a robot with 2 DC motors
- The robot should move forward while a Touch sensor is kept pressed
- On releasing the Touch sensor, the robot should stop and „preach” by moving his arm up and down by a servo motor

P3 Build St. James travelling and preaching to the disciples

- Build St. James riding a donkey on a robot with 2 DC motors
- 1 IR Photoreflector looks ahead to detect obstacles (disciples)
- The robot should move forward until the IR Photoreflector detects the disciples
- At the disciples it stops and begins to preach
- by Buzzer (random pitches)

OR

- random number of arm waves by servo motor

P4 Build St James travelling across the Iberian peninsula to Zaragoza

- Print out the map of Spain in large scale
- Build St. James riding a donkey on a robot with 2 DC motors
- Build a servo motor into the tail of the donkey
- 1 IR Photoreflector looks ahead to detect obstacles (Virgin Mary)
- The robot should move forward until the IR Photoreflector detects the Virgin Mary and stop there, the donkey should wag its tail
- The robot should move among houses like in a labyrinth (using an IR Photoreflector on each side)
- OR
- The robot should trace a line that symbolises the route across the peninsula (1 IR Photoreflector)

