

THE PILGRIMAGE STORY OF ST. JAMES

THE PILGRIMAGE IN THE MIDDLE- AGES (T4)

S2
T4
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

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

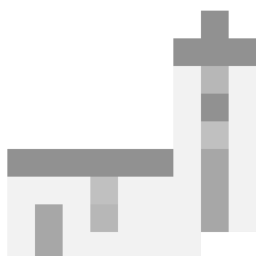
Developmental fields:

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. In T4 they also analyse the movements of vehicles with 2 and 4 wheels.

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!

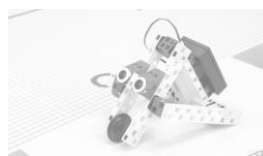
Developmental fields:

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.

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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.

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:

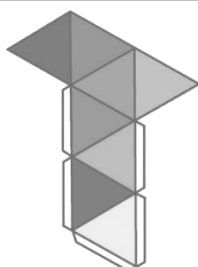
- Logical thinking
- Mathematical competences
- Spatial orientation
- Presentation skills

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

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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



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THE PILGRIMAGE IN THE MIDDLE- AGES (T4)

S2
T4
D12
L2 P3



Focus on:

- Language communication (D12)

Goals of the lesson:

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

The fame of St. James' tomb spread across Western Europe and it became a place of pilgrimage, comparable with Jerusalem and Rome. By the beginning of the 10th century, pilgrims were coming to Spain on the French routes from Tours, Limoges, and Le Puy, and facilities for their bodily and spiritual welfare began to appear along the formal pilgrimage route. Meanwhile, in Compostela itself a magnificent new basilica was built to house the relics of the apostle, along with other installations – churches, chapels, hospices, and hospitals. The 12th century saw the route achieve its greatest influence, used by thousands of pilgrims from all over Western Europe.

Main features and interactions of the characters

Character	Features	Interactions
Pilgrims	Walk, move around the peninsula, sit, stand, ride a horse, a bike, a car	Tell stories, collect stamps into their passport
Donkey, horse	Move four legs, transport humans and their luggage	
Cathedral, churches,	Non movable structures	People come to sermons, listen and ask questions

Suggestions:

- 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: _____

Pilgrims
Donkey or horse

Move, ride a horse, donkey
Walk, sit

Move around peninsula, carry things and people

Houses, shelters, diners

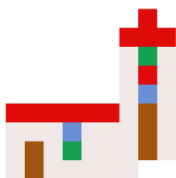
The Cathedral, churches
Trees, coast, beaches, hills

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 (set with motors and battery boxes)
- Map of Europe
- Storyline template
- Any material to mould from: clay, plasticine, salt dough, putty, shells, rocks or any similar materials



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S2
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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, axles, 3 servo motors, 7-10 Touch sensors, 3 IR Photoreflectors, 1 Sound sensor, 3 LEDs)
- 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).

Donkey

Leg
Tail

Road sign

Turn to different
directions

The name of my robot: _____

The parts I need for my robot:

Arduino	Servomotor	DC motor	Light sensor
Accelerometer	IR Photoreflector	Touch sensor	Electronic buzzer
LED	Sound sensor	IR Photoreflector	IR Photoreflector

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

Blue: action
Green: sensing
Pink: robotics
support materials
in the Technical
Corner!

This is how I build and program my robot:

What do I see?	What is it doing?	What? (action)	What? (sensing)	To whom? How long? How many times?	What sound? What color?

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

Suggestions

- Research how donkeys and horses move. Imitate the movements with the children
- Play a quick game in the gym or on the schoolyard! 3 children play road signs who show the way with their arms. The others run in a single file toward the first „road sign”, and they point toward either of the two other „road signs” at random. That is the direction the children must continue running. With the other two „road signs”, the same rule applies.
- Build simple figures with movable legs and arms from ArTeC Blocks

Related topics in the Technical corner

- Programming DC motor
 - Winding the motor until the sensor detects change (4.b, 4.c)
- Programming servo motor
 - Building and testing the servo motor (3.a)
 - Stepping servo motor (3.c)
- Testing and programming Touch sensor (4.a, 4.b, 4.c)
- Using LED
 - Lighting the LED (5.a)
- 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)

Mechanical donkey
with interesting
movement

PROG1

Donkey stopping at
the different stops of
the pilgrimage

PROG2

Donkey robot with
remote control and
turning road signs

PROG3

Donkey robot with
remote control and
turning road signs

PROG4

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P5

Ideas for robots on different programming levels

Mechanical donkey
with interesting
movement

PROG1

Donkey stopping at the
different stops of the
pilgrimage

PROG2

Donkey robot with
remote control and
turning road signs

PROG3

Donkey robot with
remote control and
turning road signs

PROG4



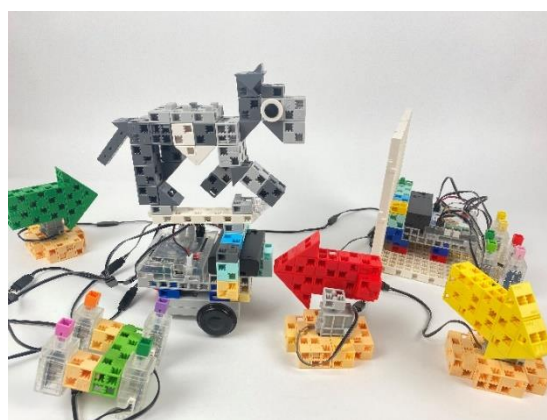
Donkey

P1 Build a donkey with interesting movement

- Use the assembly instructions
- This construction is built on eccentric spinning
- Use 1 DC motor and 1 battery box
- The donkey should move when the battery box is switched on

P2 Build the donkey stopping at the different stops of the pilgrimage

- Use a motherboard, 2 DC motors, 1 Sound sensor, 1 LED
- Create a „pilgrimage route“
- The donkey should start when it hears clapping
- It stops at the next stop and waits for another clap – and repeats



P3 Build road signs

- Build 3 road signs - each turning around a servo motor
- Each should include 1-1 Touch sensor
- Hide the Touch sensors behind a wall
- When the Touch sensor is pressed, the road sign rotates to a preset position, then returns to the original position after 2 seconds
- Build a robot with a donkey on top (use 2 DC motors and 4 Touch sensors)
- Program it to work with a 4-button remote control
- 2 children play with the robots: one controls the markers, the other has to drive the donkey in the direction indicated by the markers

P4 Build road signs

- Build the road signs and remote-controlled robot like in P3
 - Install 1 IR Photoreflexor and 1 LED on each road sign
 - When the IR Photoreflexor detects that the donkey robot is approaching the road sign, the sign turns in a random direction and the LED lights up
 - The robot must be moved in the direction shown
 - When the robot leaves the road sign (detected by IR Photoreflexor), the sign returns to its original position
- OR
- Connect 2 Touch sensors to each signpost
 - Turn the sign (in steps) as long as the Touch sensor is pressed - one to the right and one to the left
 - Move the remote control robot in the direction shown

