

ODYSSEY

NOBODY AND THE CYCLOPS BROTHERS (T2)

S23
T2
D7
L1 P3



Focus on:

- Robotics, engineering (D7)

Task1: Do some arts and crafts! Make a mosaic picture or an "ancient" Greek vase!

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:

- They can use pieces of coloured paper, or broken coloured tiles, pebbles or coloured beads, caps for making mosaic picture
- They can use air-drying ceramic or plasticine and black paint for making a Greek vase.
- They can roll a random vase using the template.

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

Developmental fields:

In focus:

- Fine motor skills
- Creativity
- History
- Mathematics

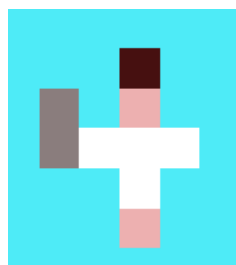
In addition:

- Life skills
- Subject – Civics
- Talent development
- Social skills

Task3: Make a pixel art picture! Use the technique to scale it up and down!

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:

- They can use ArTeC blocks and baseplate
- They can work in the Piskelapp application
- Using the template, students can color the picture according to binary color codes

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

Take photos of buildings while they are being built and when they are finished.

Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity
- Mathematics, IT

In addition:

- Life skills
- Social skills
- Subject – Arts and crafts
- Talent development

How to manage output:

Organise the completed photos either in an online repository or printed on a notice board. If the children have made notes, or have any additional ideas left over, attach them as well.

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S23
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L1 P4

Focus on:

- Robotics, engineering (D7)



Task2: Play blind man's buff! Play a Seeing-eye guide game!

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:

- Blindfold one child in the class. His job is to catch the others. Use sounds and touch to get his attention.
- Blindfold one child from the class with a scarf. Build an obstacle course in the room using tables, chairs, and other objects! Guide them through the obstacle course! You can guide them with words, other sounds, or touch—agree on this beforehand!
- Make sure that no accidents happen!

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

Developmental fields:

In focus:

- Social skills
- Life skills
- Spatial orientation

In addition:

- Creativity
- Subject – Civics
- Talent development

Task4: Help the sailors escape!

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:

- Group the sheep on the teplate
- Select the numbers that, when divided by 3, leave a remainder of 1.

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

Take photos of buildings while they are being built and when they are finished.

Developmental fields:

In focus:

- Mathematics, IT
- Life skills
- Fine motor skills
- Spatial orientation

In addition:

- Social skills
- Talent development

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NOBODY AND THE CYCLOPS BROTHERS

(T2)

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In focus:

- Robotics, engineering (D7)

Goals of the lesson:

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



Odysseus and his companions are captured by Polyphemus, a giant Cyclops. Every morning, the Cyclops devours two prisoners before going out to tend to his flock, then he puts a heavy stone in front of his door. Odysseus, seeking a way to escape, spots a giant club and decides to turn it into a spear. He asks his men to help him harden it in the fire. In the evening, Polyphemus returns, tends to his flock, and devours two more prisoners. Odysseus then offers him strong wine, and the Cyclops, charmed, drinks a large quantity. When Polyphemus asks his name, Odysseus replies "Nobody," hoping this will help with his plan. Eventually, the Cyclops, drunk, falls into a deep sleep, ready to eat Odysseus last. Seizing the opportunity, Odysseus heats the pointed club in the fire, and with the help of four of his strongest men, they plunge their weapon into the Cyclops's eye with all their might before protecting themselves from his fury.

Character	Features	Interactions
Odysseus	Strong, brave, tricky,	Finds out solution Says that his name was „Nobody“, Gives wine to the Cyclops, Makes the Cyclops blind
Cyclops	Giant, has one eye, drunk	Eats the sailors Drinks wine
Sailors	Frightened, strong	Harden a tool, help to Odusseus

Suggestions

- Identify the characters in the text, with particular emphasis on the main plot points, character traits, emotions and movements.
- Collect pictures and information about the ancient Greek history, art and mythology
- Collect stories from world literature in which a small character defeats a large one with trickery and skill.

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!

Odusseus, sailors, Cyclops

Move, walk, hear sounds, scream, lift the tool

Rocks, Cave
Furnitures
Bottle of wine
Sheep

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


 Your name _____
 Build _____


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


 Your name _____
 There also should be: _____


 Your name _____
 Think over: _____

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Suggested materials

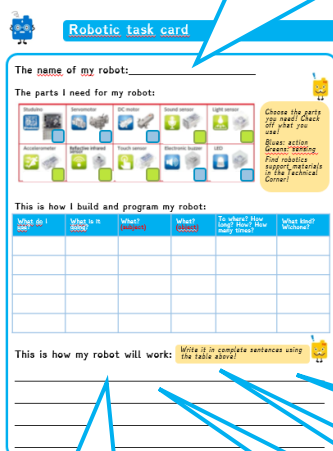
- ArTeC blocks (at least the 112 pcs set) and ArTeC robot set (at least 1 Studuino motherboard, 2 DC motors, 5 servo motors, 5 Touch sensors 1 Buzzer, 1 Red LED, drive rails, gears)
- Character cards and Robotic task card template
- Pencil

Suggestions

Walking, staggering

- Discuss with children how people move
- Do some movements together so that children can observe the phases of their movements
- Show children anatomical mannequins in motion
- Build figures with moving body parts from ArTeC blocks

Stepping
Staggering
Screaming



Robotic task card

The name of my robot: _____

The parts I need for my robot:

Choose the parts you need. Check off as you go!
☐ ArTeC blocks ☐ Studuino motherboard ☐ DC motors ☐ Servo motors ☐ Touch sensors ☐ Buzzer ☐ Red LED ☐ Drive rails ☐ Gears

Choose the parts you need. Check off as you go!

Blue: Action
Green: Sensing
Find robots in the Technical Corner!

This is how I build and program my robot:

What do I want to do?	Which is the best way to do it?	What do I need?	How do I build it?	How do I program it?	What do I want to do?

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

In focus:

- Robotics, engineering (D7)

Goals of the lesson:

- problem solving
- decision making
- body image

How to fill in the Robotic card?

- Choose the robot's activity and the complexity of the program to match the child's abilities, based on the activity card, the developmental aspect and the programming level.
- If necessary (e.g. for clarification or differentiation), additional robot cards can be filled in.
- Design the robot with several ways of building/programming!
- Complete the robot cards in the target language!
- Not all columns of the table need to be filled in, only those relevant to the robot's specific operation.
- Based on each row of the table, describe the robot's operation in the target language using grammatically correct sentences.

Related topics in the Technical corner

- Programming DC motor (2.a, 2.b)
- Programming servo motor
 - Moving mouth to a given angle (3.a, 3.b)
 - Repeated mouth movements a given number of times (3.b)
- Using Touch sensors (4.a)
 - Remote control made of 4 Touch sensors (4.d)
- Lighting the LED (5.a)
- Using Buzzer (6.a,b)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using IR photoreflector for detecting an object (7.d, 7.e)

Cyclops movable on rack and pinion structure

PROG1

The Cyclops is moved in variable directions on a robot controlled by 4 Touch sensors

PROG2

Randomly moving robot, scratching with its arm

PROG3

A cyclops that starts to move to the sound of applause with 4 servo motors

PROG4

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Ideas for robots on different programming levels

Cyclops movable on rack and pinion structure

PROG1

The Cyclops is moved in variable directions on a robot controlled by 4 Touch sensors

PROG2

Randomly moving robot, scratching with its arm

PROG3

A cyclops that starts to move to the sound of applause with 4 servo motors

PROG4



The journey of the boat

P1 The cyclops blocks the entrance

- We build the entrance to the cave.
- On the roof build a gear-and-rack structure according to the model.
- This will move the cyclops in front of the entrance.
- Build tiny human figures.

P2 Staggering cyclops

- The figure of the cyclops is built on a trolley with 4 Touch sensor controllers. Attach a buzzer with 1 red LED in place of the eye.
- A servo motor is mounted on his shoulder.
- When you move it in either direction, it raises its arm.
- When it stops, it lowers its arm and makes a sound with the Buzzer.

P3 Staggering cyclops

- The cyclops figure is built on a trolley with 1 Touch sensor and 1 red LED in place of the eye.
- A servo motor is mounted on his shoulder.
- Each time the Touch sensor is pressed, the Cyclops makes a buzzer sound and moves in a random direction for 2 seconds, while mowing with its arms.

P4 Stepping Cyclops

- The cyclops can step thanks to the 4 servo motors built into its legs.
- The coordination of the 4 servo motors, the continuous balancing of the robot and the precise measurement of the values allow the robot to stay on its feet and not to tip over.
- The cyclops starts to step on a clap, which is detected by a Sound sensor.

