

KELOĞLAN AND A MAGICAL BOWL THE RICH BOY (T3)

S17
T3
D8
L1 P3



Focus on:

- Other subjects-History (D8)

Task1: Investigate ancient palaces. Find out how they meet their daily needs, how they do their shopping.

Imagine what a palace looks like, the people in it. Draw, design, build, make games.

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:

- Drawing
- Play Dough
- Clay, stone
- Paper, crepe paper
- Textile, Yarn
- Pixel
- Origami
- Toilet paper, paper towel rolls
- App

Developmental fields:

In focus:

- Social skills
- Fine motor skills
- Creativity

In addition:

- Subject – environmental education
- Talent Development
- Life skills

<https://www.youtube.com/watch?v=L3xrsGeXJ1k>
<https://www.youtube.com/watch?v=NgP5EEuRPsY>

Task2: Create decorations related to the palace. Prepare games.

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 (I5):

- Build a palace out of cardboard. Build a maze inside. Prepare behavioral questions inside the mazes. Let those who answer the questions correctly get out of the maze. Those whose answers are not correct should think until they give the correct answer.

Developmental fields:

In focus:

- Social skills
- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Talent Development
- Life skills
- Behavioral sciences

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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L2 P3



In focus:

- Other subjects-History (D8)

Goals of the lesson:

- Course objectives:
- understanding
- problem solving
- to decide
- organization of group work



Keloğlan and his Mother's New Life in the Palace

Keloğlan filled and emptied the magic bowl full of water from the stomach of the fish. He also deposited gold in the jars whose water was empty. Now even the ruler of the country was considered poor next to him... With the gold he had accumulated, he had a big palace built and moved there days later. He hired servants. He buys everything he loves and wants, eats the best food. He was constantly giving orders to the palace guards, the officials in the palace, and his servants. His changing new life has differentiated the Keloğlan. Rich Keloğlana started to live a different life. He started to become a rich and insatiable person.

Main features and interactions of the characters

Character	Features	Interactions
Keloğlan	Walks, moves arms	The magic bowl filled and emptied the water cubes. He put the gold in the jars with empty water.
Keloğlan's mother	Walks, moves arms	He moves to the palace with Keloğlan. He thinks that Keloğlan has changed. She gives him advice. He always tries to explain that what he did was wrong.
Palace Guards	Walks, moves arms	Provides the organization of daily affairs in the palace. They serve the Keloğlan.
Palace Maids	Walks, moves arms	He is responsible for the security of the palace. They serve the Keloğlan.

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!


Character task cards


 Your name _____
 Build _____


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


 Your name _____
 There also should be: _____


 Your name _____
 Think over: _____

Keloğlan

Keloğlan Mother

Palace Guards
Palace Maids

Main idea
Files needed
Divide the text
into parts
List the necessary
materials

Suggestions

- Identify characters in the text, with particular emphasis on main plot points, character traits, emotions, and actions.
- Discuss the role of the palace host and guard together. Gather information about life in the palace.

Suggested materials

- ArTeC robot and Blocks (at least the 112 pcs set)
- Anatomical models or pictures of mouth, arms and legs
- white paper, pencil, folder

Discuss the actions of Keloğlan, his mother, the palace guards and the servants. Discuss the cause and effect of the characters' behavior.

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L3-4
P4



Suggested materials

- ArTeC blocks (at least the 112 pcs set) and ArTeC robot set (at least 1 or 2 Studuino motherboards, 2 DC motors, 3 servo motors, 2 LED, 4 Touch Sensors, 2 IR Photoreflectors, Accelerometer)
- Character cards and Robotic task card template
- Pencil

In focus:

- Other subjects-History (D8)

Goals of the lesson:

- problem solving
- decision making
- body image
- planning

Suggestions

Walking

Discuss how human movements are made
Make some movements together and the children should perceive the phases of their own movements

Show movable anatomical models to the children

Build a simple figure with movable legs, arms or mouth from ArTeC Blocks

Build simple models with different technics

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 character 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.

Arm
Leg
Mouth

Robotic task card

The name of my robot: _____

The parts I need for my robot:









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

Bonus action
Create a story
Find robotics support materials in the Technical corner!

This is how I build and program my robot:

What do I want?	What is it made of?	What do I want?	What is it made of?	What do I want?	What is it made of?	What do I want?	What is it made of?

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 (2.a, 2.b)
- Testing and programming servo motor (3.a)
 - Programming of tilting motion (3.b)
- Testing and programming Touch sensor (4.a, 4.b)
 - Programming of 4 push-button remote control (4.d)
 - Programming of Accelerometer (4.e)
- Using LEDs (5.a)
 - Blinking (5.b)
- Programming IR Photoreflector (7.a, 7.c, 7.e)
 - Object detection with IR photoreflector (7.d, 7.e)
- Testing and programming a Sound sensor (9.a)
 - Activating the robot by sound (9.b)

Scenes with differently structured characters

PROG1

Playing debates with DC motor-driven arms and Buzzer-built robots.
Showing the growth of the house with servo motor

PROG2

Arguing cooperative robots with servomotor. Geared puppet theatre controlled by an infrared sensor

PROG3

A static robot with a special structure, built like a jigsaw puzzle

PROG4

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Ideas for robots on different programming levels

Scenes with differently
structured characters

PROG1

Playing debates with DC
motor-driven arms and
Buzzer-built robots.
Showing the growth of the
house with servo motor

PROG2

Arguing cooperative
robots with
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puppet theatre
controlled by an
infrared sensor

PROG3

A static robot with a
special structure,
built like a jigsaw
puzzle

PROG4



Encountering the magical grail in a fish belly

P1 Puppeteering the scene with figures of different structures

- a.) Mother's arms can be moved with axle.
- The boy's arms can also be moved with two axles. The scene can be staged with the two figures.
- b.) Build a geared mechanism driven directly from a battery holder by 1 DC motor.
- A smaller and a larger house are built on the gear. These are rotated during the scene, so that the small house is replaced by a larger one.

P2 Puppetry with robots built with DC and servo motors

- a.) We build Mother and Son in a similar way:
- His/her arm has 1 DC motor built into it, which he/she moves up and down by pushing 1 Touch sensor.
 - 1 Buzzer also makes a sound as if arguing with the other.
- b.) Fixed smaller house with the facade of a larger house in front of it.
- This part rises up by pressing 1 Touch sensor with the help of 1 servo motor.
 - Finally, 1 LED lights up and illuminates the window of the larger house.

P3 Sensor controlled robots

- a.) There is 1 servomotor in the arm of the mother, which moves up and down triggered by 1 sound sensor.
- The son's Buzzer triggers the mother's program.
 - She also makes a noise with 1 Buzzer as if she is arguing with her son.
 - Boy has 1 servo motor built into his arm, which moves up and down in response to 1 Touch sensor.
 - 1 Buzzer also makes a sound as if he is arguing with his mother.
 - They take turns talking.
- b.) A puppet theatre built with drive rails. The structure is driven by 2 servomotors.
- On each side, there are 1-1 infrared sensors built into 1-1 cauldron.
 - When the boy stands in front of one of the sensors, the house is raised from that side by the rack and pinion assembly.
 - Boy can be controlled by a remote controller made of 4 Touch sensors to one of the two infrared sensors, which activates the puppet theatre. With the 4 Touch sensors, the boy robot can be controlled right, left, forward and backward.

P4 Cooperating robots, accelerometer controlled puppet theatre

- a.) 1 servo motor is built into the arm of the mother.
- 1 push button starts her program.
 - 1 Buzzer also makes a sound as if she is arguing with her son.
 - The boy has 1 servo motor in his arm, which he moves up and down with 1 push button.
 - 1 Buzzer also makes a sound as if he is arguing with his mother.
 - The two figures are connected to the same mother board and make sounds in random order.
- b.) The smaller house has 3 sides of the larger house laid out in several sections around it.
- 3 servo motors lift up the sides of the house to represent the larger house.
 - The elements rise one after the other with 1-1 servo motor, building the larger house like a puzzle.
 - The building steps are controlled by an accelerometer.

