

KELOĞLAN AND A MAGICAL BOWL MAGICAL BOWL (T2)

S17
T2
D6
L1 P3

Focus on:

- Computational thinking – life skills (D6)



Task1: Draw the fish! Imagine how they would behave! Depict them!

Every solution is good!

All kinds of tools and materials can be used!

You can use the ideas and materials list in the Idea Bazaar, come up with your own ideas or let the kids be creative..

Idea Bazaar – some ideas:

- Drawing
- Play Dough
- Hair
- Paper
- Textile, Yarn
- Pixel
- Origami

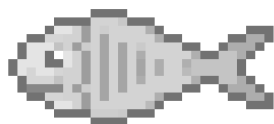
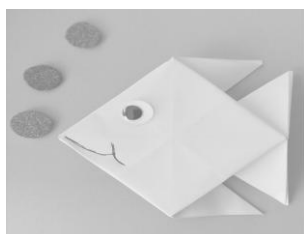
Developmental fields:

In focus:

- Social skills
- Fine motor skills
- Creativity

In addition:

- Mental gymnastics, walking
- Talent Development
- Life skills



<https://www.youtube.com/watch?v=wfCnm5SgXY4>



Task 2: Number fishing game. Understanding a game where you can do mathematical operations.

You can play games where you will realize your own hobbies.

Or

Use your creativity with stop motion and toontastic program. Create your cartoon.

Every solution is good!

Idea Bazaar – some ideas:

- Add surprises that will multiply the goodness in the back environment of the fish you designed in the fishing game. Share these words with the people around you. (This could be a promise, a food, a design you made from paper, food for animals, a souvenir from a book, a cookie, etc.)

Developmental fields:

In focus:

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

In addition:

- Mental gymnastics, walking
- Talent Development
- Life skills



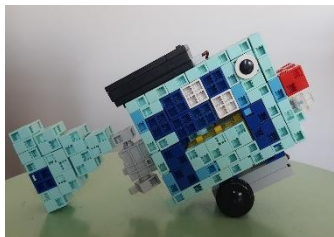
How to manage output:

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.

KELOĞLAN AND A MAGICAL BOWL

MAGICAL BOWL (T2)

S17
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D6
L2 P3



In focus:

- Computational thinking – life skills (D6)

Goals of the lesson:

- understanding
- problem solving
- decision-making
- organization of group work

Keloğlan's Friend Donkey and the Fish That Changed His Life

Keloğlan was a poor person. He lived with his mother. He met his livelihood and food needs with limited means. His donkey was their best friend and sidekick. His donkey was doing the transport. All he had was an old house and a donkey. Keloğlan and his donkey were all together. One day Keloğlan and his mother were very hungry. They had no food to fill their stomachs at home. Keloğlan thought of fishing. He could feed himself and his mother by catching fish and going home and cooking. There was a river in front of their house. He went to the river with his fishing rod, which he made with his own means. He threw his fishing rod into the river and started fishing. A fish came to the hook. That fish was a magic fish. Keloğlan started to clean the fish by taking it from the fishing line. There was a bowl protruding from the belly of the fish. Keloğlan was very surprised. He began to ask himself why the fish had a bowl in its stomach. But the bowl may have been needed at home. He thought he could use the bowl for chores. Then he continued to clean the fish. He filled the bowl with water and began to clean the fish. The water in the bowl began to flow like gold. He didn't leave the bowl there in case he needed it later at home. Each time he immersed the bowl in the water, the gold continued to flow as the water began to flow out of the bowl.

Main features and interactions of the characters

Character	Features	Interactions
Fish	Moves left and right	A hidden bowl is hidden inside.
Donkey	Walks, moves arms	It is a loving and loyal animal to its owner. Even in poverty, he always helped his owner in difficult times.
River	Moves left and right	It moves left and right.

Suggestions

- Identify the characters in the text, with particular emphasis on the main plot points, character traits, emotions and movements.
- Gather information about fish and donkeys..

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

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: _____

Fish
River

Donkey

Keloğlan
Keloğlan Mother

The main moments
of the plot
Files needed
Divide the text into
parts
List the necessary
materials

KELOĞLAN AND A MAGICAL BOWL MAGICAL BOWL (T2)

S17
T2
D6
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, 4 LED, 4 Touch Ssenosors, 3 IR Photoreflectors)
- Character cards and Robotic task card template
- Pencil

In focus:

- Computational thinking – life skills (D6)

Goals of the lesson:

- problem solving
- decision making
- body image

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

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.

Arm
Leg
Mouth
Removes the bowl from the stomach of the fish.
The donkey walks.

Robotic card

The name of my robot: _____

The parts I need for my robot:

Robot	Sensor	DC motor	Servo motor	Light sensor
☐	☐	☐	☐	☐

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

Blue: action
Green: testing
Find robotics support materials in the Technical Corner!

This is how I build and program my robot:

What I do!	What is it about?	What?	What?	Do you need more parts?	What kind? Name it!

This is how my robot will work: _____

Write it in complete sentences using the table above!

Related topics in the Technical corner

- Programming servo motor
 - Moving to a given angle(3.a)
- Testing and programming IR Photoreflector (7.a, 7.c, 7.e)
 - Using IR photoreflector for detecting an object (7.d, 7.e)
- Using LED (5.a)
 - Blinking (5.b)
- Testing and programming the Sound sensor (9.a, 9.b)

Stunning the scene with figures

PROG1

Tilting the kettle with a servomotor driven arm

PROG2

Robot operation with infrared sensor

PROG3

Multi-sensor servomotor robot operation

PROG4

KELOĞLAN AND A MAGICAL BOWL MAGICAL BOWL (T2)

S17
T2
D6
L3-4 P5

Ideas for robots on different programming levels

Stunning the scene with
figures

PROG1

Tilting the kettle with a
servomotor driven arm

PROG2

Robot operation with
infrared sensor

PROG3

Multi-sensor
servomotor robot
operation

PROG4



Encountering the magical bowl in a fish belly

P1 Puppeteering with figures

- Construction:
- The boy is built with a movable arm with quivers.
- The cauldron can be moved with an axle arm and the coins inside can be unloaded.
- Fish also appear in the scene.

P2 Servomotor decision

- Son is constructed in the same way as in P1.
- The cauldron is tilted by 1 servo motor and the mini cubes representing the coins are poured out. 1 blue LED lights up in the cauldron, which goes out when the mini dice are ejected from the cauldron.

P3 Servomotor robot with infrared sensor

- The boy is built in the same way as P1.
- The construction of the cauldron is the same as P2, but 1 infrared sensor is added. When this detects that the boy is placed in front of the infrared sensor, 1 servomotor will tilt the cauldron and 1 blue LED will go out.

P4 Servomotor robot with infrared sensor

- Boy built in the same way as P1.
- The construction of the cauldron is the same as P3, but with the addition of 1 sound sensor and 2 LED strips. When the infrared sensor detects that the boy is placed in front of the sensor, 1 servo motor tilts the cauldron and 1 blue LED goes out. Then the LED strips will light up like a running light, like a light anchor, to represent the flow of gold money.

