

KELOĞLAN AND A MAGICAL BOWL THE BIG LESSON (T4)

S17
T4
D3
L1 P3



Focus on:

- Spatial orientation (D3)

Task1: Discuss the meaning of belonging to a pack, to a community, the phenomenon of ostracism and the emotions it brings!

Every solution is good!

Any kind of tool and material can be used!

You come up with your own ideas or just let the children be creative.



<https://www.tinkercad.com/>

https://www.youtube.com/watch?v=LrU2zm_g7IE

Idea Bazaar – some ideas:

- Drawing
- Play Dough
- Clay, stone
- Paper, crepe paper
- Textile, Yarn
- Pixel
- Toilet paper, paper towel rolls
- Programming
- 3D Design

Developmental fields:

In focus:

- Social skills
- Fine motor skills
- Creativity

In addition:

- Subject – Empathy
- Talent Development
- Life skills



Task2: Prepare designs according to your talent. You can use any material in these designs. You can draw your own 3D design, you can make creative figures from recycled materials. Use the materials you created for a social responsibility project. Collect or 3D print these designs. Organize a bazaar by making social responsibility projects for people or animals in need of help in your school or around you. Multiply the good. (drawing, engraving, 3D design, 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 :

- Create designs. Collect every material you design and organize a bazaar for people and animals in need of help with your friends in your school or around you. Deliver the donations you collect to people in need. Donate food to shelters for animals.



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:

- Spatial orientation (D3)

Goals of the lesson:

- text comprehension
- problem solving
- to decide
- organization of group work

Keloglan was constantly collecting and spending gold with the magic bowl. But his mother was not very happy with Keloglan's behavior. She got happy at first but then she gave him some advice how to spend his money how to be careful with his money. But Keloglan did n't listen to his mother. He thought he had the magical bowl and the money would never finish so he would never be poor again. His mother was worried about him. She did n't want him to lose his kindness. Keloglan soon became the richest person in the country. Soon he started to be spoiled by richness, he wasted a lot of gold unnecessarily. He never helped anyone and he never cared about the other people. So once again his mother warned him about spending his money and about his behavior with the other people. Keloglan never listened to his mom.

Keloglan made his mom sad by not listening to her, so she decided to go back to their old house. Soon people started talking about Keloglan in a bad way. Keloglan wouldn't care about anything. He was just thinking about having more and more money. Keloglan wanted another palace, a bigger one by the river. So, he went to the river. He took his bowl out, but right at that time the bowl fell off his hand into the river. He jumped into the water to get the bowl but he didn't know how to swim. Barely he could save himself. No one even helped him. Meanwhile, thieves stole his gold. He was sad and lonely. Therefore, he went back to his mother to tell her what had happened. His mother talked to him nicely and comforted him. She told him that money was not everything and it was not worth losing friendship, respect and happiness just to be rich.

She gave him a life lesson, this time keloglan listened to his mom and he decided to change his behavior and start a new good life.

Main features and interactions of the characters

Character	Features	Interactions
Keloglan	Walks, talks, moves arms	Keloglan is constantly collecting gold with the magic bowl. He gets very rich. It doesn't help anyone. He's making unnecessary expenses. His mother warns him, but he doesn't listen. She goes to the river again because she wants a bigger palace and she falls into the river. Nobody is helping him. He barely escapes the river. Meanwhile, thieves steal their gold. He realizes his mistake. He is starting a new life.
Keloglan's mother	Walks, talks, moves arms	His mother gives advice to Keloglan. Keloglan upsets his mother and her mother returns home. Keloglan speaks beautifully after realizing his mistake.
River	Moves left and right	

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

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: _____

Keloglan

Keloglan Mother

River

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

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

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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, 2-8 servo motors, 5 Touch Sensors, 2-8 IR Photoreflectors, 2 Buzzers, 1 Accelerometer)
- Character cards and Robotic task card template
- Pencil

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

In focus:

- Spatial orientation (D3)

Goals of the lesson:

- problem solving
- decision making
- body image
- planning

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)
- 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)
- Programming Buzzer (6.a, 6.b)
- Programming IR Photoreflector (7.a, 7.c, 7.e)
 - Object detection with IR photoreflector (7.d, 7.e)
 - Programming a line-tracing robot (7.f)



Robotic task cards



The name of my robot:

The parts I need for my robot:

Motor	Sensor	DC motor	Sound sensor	Light sensor
				
Accelerometer	Ultrasonic sensor	Touch sensor	Micro:bit sensor	LED
				

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

Green: Action Done
 Yellow: Support materials
 Red: Technical Corner!

This is how I build and program my robot:

What do I use?	What is it doing?	What's important?	What's different?	To what? How long? How many times?	What does it achieve?

This is how my robot will work:

Write it in complete sentences using the table above!

Moving structures without programming

PROG1

Static and mobile robots and robots with DC and servo motors

PROG2

Robot controlled by an
IR Photoreflector.
Interaction between
moving and static
robots

PROG3

A line-tracing robot interacts with objects placed on a track. Cooperation between static and moving robots

PROG4

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Ideas for robots on different programming levels

Moving structures
without programming

PROG1

Static and mobile robots
and robots with DC and
servo motors

PROG2

Robot controlled by
an IR Photoreflexor.
Interaction between
moving and static
robots

PROG3

A line-tracing robot
interacts with objects
placed on a track.
Cooperation between
static and moving
robots

PROG4



Accumulating gold. The differentiation of wealth and character

P1 DC motor without programming

- Boy built with DC motor and battery holder, alternately moving his arms to „swim“.
- On a gear train directly driven by a DC motor, figures of the boy and some villagers are placed.
 - When the battery charger is switched on and drives the DC motor, the boy turns towards the people, the other figures turn away from the boy.

P2 Swimming boy

- Boy figure mounted on 1 DC motor, alternately moving his arms, moves forward as if swimming.
- He starts on pressing 1 Touch sensor and stops on pressing another.
 - Boy moves forward for 5 seconds, his program starts on pressing 1 Touch sensor.
 - The villagers turn away from the boy on 2 servo motors when he gets in front of them.
 - Their program starts on pressing 1 Touch sensor.

P3 IR Photoreflexor controlled robot and cooperating robots

- The robot is controlled by 1 IR Photoreflexor on each side of the boy robot.
 - The robot moves right-forward or left-forward, depending on which sensor you place the kettle in front of.
 - When it stops, the figure will rise with 1 servo motor and make 1 Buzzer sound as if it is drowning.
- Boy built as a robot with 5 Touch sensors (4 Touch sensors control the 4 directions and one activates the Buzzer).
 - When he gets in front of the villagers, he "talks" and when the villagers turn away from him, he goes silent.
 - The villagers are built in a similar way to P2, but with 1 IR Photoreflexor built onto the static robot and they "talk" continuously with Buzzer.
 - When the inhabitants detect the boy, they turn away from the boy and their Buzzer shuts off.

P4 Interaction between line-tracing robot and servomotor robots

- Boy robot with 1 IR Photoreflexor, moving with line tracing.
 - With 2 servo motors, its legs move as if it were swimming.
 - It also has 1 IR Photoreflexor in its hand, which is turned towards the front and watches for obstacles.
 - If the boy robot comes up to one of the 2 cauldrons on the perimeter, a barrier closes for 1 to 5 seconds and the robot stops and sounds its Buzzer.
 - If the barrier is opened, the boy robot moves on by pressing 1 Touch sensor.
- Boy robot moves forward zigzag with 1 Accelerometer.
 - The villagers are equipped with 8 servo motors and 8 IR Photoreflexor. They are placed along the boy's zigzag path. As the boy passes by 1-1 figure, that figure turns away from the boy.

