

THE WALK OF THE DISTRACTED CHILD BACK HOME (T4)

S5
T4
D3
L1 P3

Focus on:

- Spatial orientation (D3)



Task1: What does the environment of the story look like?

Students create elements of the environment.

Every solution is good!

Any kind of tool and material can be used!

You can use the ideas and the list of materials from the Idea Bazaar, use your own ideas or just let the children to solve the problem using their creativity.



Idea Bazaar – some ideas:

- Building environment out of ArTeC Blocks (I1)
- Building environment out of recycled materials
- Drawing/tinkering
- 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: What does a character with mobile/missing limbs look like?

Students create a human figure with mobile/missing limbs.

Every solution is good!

Any kind of tool and material can be used!

You can use the ideas and the list of materials from the Idea Bazaar, use your own ideas or just let the children to solve the problem using their creativity.

Idea Bazaar – some ideas:

- Building a character out of ArTeC Blocks
- Cutting and binding a cardboard character (I2)
- Drawing series
- Animation editor/Paint/

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

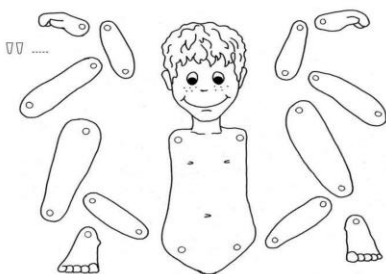
Developmental fields:

In focus:

- Fine motor skills
- Spatial orientation
- Creativity

In addition:

- Attention concentration
- Subject concentration – Drawing, IT
- Talent development



How to manage output:

Hang the pictures on the wall, on a big poster, and ask the children to arrange them according to a rule they decide. Store the objects in a wardrobe, to protect them from falls. Attach a label with the name of the group!

THE WALK OF THE DISTRACTED CHILD BACK HOME (T4)

S5
T4
D3
L1 P3

Focus on:

- Spatial orientation (D3)



Task3: How often is your concentration lacking?

Students talk about attention and memory and try to reflect on this cognitive functions
They dramatize and act out the given situation.

Task4: How are your memory abilities?

Students talk about memory and try to reflect on this cognitive functions
They dramatize and act out the given situation.

Every solution is good!

You can use the Act it out! cards from the Idea Bazaar , use your own ideas or just let the children to solve the problem using their creativity.

Idea Bazaar – some ideas:

- Find out and dramatize a situation where you have lost something!
- Dramatize a situation in which you have to solve the problem alone/in which you receive help from someone!

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

Cut out the situation cards!

Choose the focus that you want the children to deal with! Give them the appropriate situation card!

Help them to build the situation if needed!

Developmental fields:

In focus:

- Social skills
- Focusing strategies
- Attention and concentration

In addition:

- Life skills
- Text comprehension
- Talent development



THE WALK OF THE DISTRACTED CHILD S5 T1-4 L1

Some ideas- Feeling distracted- Focusing strategies

Act it out!
Are you usually distracted?
What did you do the last time you were distracted?
How did you notice it?
How did you feel in that occasion?
Imagine and dramatize a situation where you were distracted during school time or free time!

Act it out!
How is your memory? Do you usually remember phone numbers, names and details?
When you hear a story or a joke for the first time, can you repeat it to your classmates?
Imagine and dramatize a story where the story director forgets important details (creating absurd situations).

Act it out!
Do you live in a village or in a city?
Do you know the people of your neighborhood?
Have you ever asked for help to neighbours or to people next to you?
Imagine and dramatize how to ask for help in a bad situation.

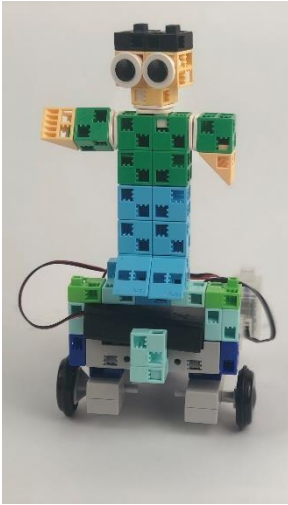


How to manage output:

Take a video/audio record of the dramatized situation!

THE WALK OF THE DISTRACTED CHILD BACK HOME (T4)

S5
T4
D3
L2 P3



Focus on:

- Spatial orientation (D3)

Goals of the lesson:

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

| Character | Features | Interactions |
|------------|----------------------------------|--------------------|
| Giovannino | Walks, knocks the door interacts | Talk to each other |
| Mom | Walks, interacts | |

Finally, Giovannino arrives, hopping on one leg, with no more ears or arms, but as cheerful as ever, cheerful as a sparrow. His mom shakes her head, puts him back and gives him a kiss.
 "Anything missing, Mommy? Have I been good, Mommy?"
 "Yes, Giovannino, you have been very good."

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!

Suggestions

- Discuss with your students on how often they forget school materials or lose things
- Discuss with your students on how they usually are attentive during the lessons/which strategies can be used to avoid distraction
- Discuss with your students on how their memory works and which strategies can be used to improve it

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

Giovannino
Mom

Walk
Speak


House
Street
Home
Visitors

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




Your name _____

Build _____




Your name _____

Be attentive, your robot should be able to: _____



Your name _____

There also should be: _____



Your name _____

Think over: _____

THE WALK OF THE DISTRACTED CHILD BACK HOME (T4)

S5
T4
D3
L3-L4
P4



Suggested materials

- ArTeC Blocks (at least the 112 pcs set) and ArTeC robotics set (1 or 2 Studuino motherboards, 2 DC motors, wheels, 3 IR Photoreflectors, 4 Touch sensor, 6 LEDs)
- Mindmap or Chart draft , Storyline
- Character cards and Robotic task card template
- Pencil

Focus on:

- Spatial orientation (D3)

Goals of the lesson:

- fine motor skills,
- problem solving,
- decision making
- life skills

How to fill in the Robotic card?

- Choose 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).

Suggestions

Going

- 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

Jumping

- Different styles of jumping (Jumping with one foot..)

Arm
Hand
Picking a jar

Robotic task card

Your name _____

Build a robot that can move its _____

Use actuators and sensors for building:
 "Senses" are green
 "Actions" are blue
 (Choose the needed parts)
 (Check the boxes!)

| | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Hand sensor | Servomotor | DC motor | Sound sensor | Light sensor |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Accelerometer | Infrared sensor | Touch sensor | Electronic buzzer | LED |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Build and program so that the robot _____

Use the Technical Corner for robotics helping materials.

Related topics in the Technical corner

- Programming DC motor
 - Setting power, direction (2.a, 2.b)
 - Random movements (2.f)
- Using LED (5.a, 5.b)
- Using Touch sensor (4.a, 4.b)
 - Remote control made of 4 Touch sensors (4.d)
- 7. IR Photoreflector
 - 7.a) Testing IR photoreflector
 - 7.b) Detecting obstacles
- Using variables (11.a)
 - Counting (11.c)

Visitors come to Mom and symbolically brings home 1 – 1 parts of the boy, and then the boy comes home happy.

PROG1

The handover is symbolized with pTouch sensor controlled LEDs. The little boy is coming home.

PROG2

IR photoreflectors control the switching on and off of the LEDs on both robots. One after the other, the actors hand over the parts they have brought to Mom.

PROG3

Mom counts the number of guests arriving and, indicated by LEDs, takes as many things from visitors as the number of visitors arriving.

PROG4

THE WALK OF THE DISTRACTED CHILD BACK HOME (T4)

S5
T4
D3
L3-L4
P5

Ideas for robots on different programming levels

Visitors come to Mom and symbolically brings home 1 – 1 parts of the boy, and then the boy comes home happy.

PROG1

The handover is symbolized with pTouch sensor controlled LEDs. The little boy is coming home.

PROG2

IR photoreflexors control the switching on and off of the LEDs on both robots. One after the other, the actors hand over the parts they have brought to Mom.

PROG3

Mom counts the number of guests arriving and, indicated by LEDs, takes as many things from visitors as the number of visitors arriving.

PROG4



Bringing back his parts

P1 Puppeteering

- The baker, the taxi driver and the aunt come to Mom and hand over the parts of the little boy that they have symbolically found.
- In the end, the little boy comes home.

P2 Push-button robots

- 1 - 1 LED and 1 -1 Touch sensor are mounted on the visitors. When the Touch sensor on the actor is pressed, the LED that has been lit continuously until then goes out.
- Mom has 3 LEDs and 3 Touch sensors.
- When the LED on an actor goes out, pressing a button on the Mom will light up an LED.
- LEDs of the same colour work in unison.
- The little boy goes forward for 3 seconds and stops after pushing its Touch sensor.

P3 IR photoreflexor controlled transmission

- Visitors move together mounted on a robot.
- Their program is triggered by a Touch sensor.
- If the IR photoreflexor mounted on the front of it detects Mom, stops the robot.
- After a short wait, the 3 LEDs of the 3 operators will then go out one after the other.
- There is also 1 IR Photoreflexor on the Mom, 1 servo motor in the neck and 3 LEDs.
- When visitors are detected by the IR photoreflexor, the head moves left and right in disapproval.
- Then, one by one, the LEDs on the visitors go out, and one by one the LEDs on the Mom switch on, following the order of the colours. This represents the cursing.
- The little boy goes ahead to his Mom and stops after pushing its Touch sensor.



P4 Transfer managed by inserting a variable

- The robot built according to P3 will also have 2 Touch sensors and 1 IR photoreflexor.
- The robot follows different paths when you press different buttons.
- The robot advances to the Mom position once for one, twice for the second and three times for the third, and then returns to its starting position.
- The number of LEDs that light up when the Touch sensors are pressed is the same as the number of times the robot moves backwards and forwards.
- The robot's IR photoreflexor detects when it touches the Mom.
- It makes the round trip once, twice or three times depending on which button you press.
- The LEDs will then go out.
- Compared to the P3, the Mom's structure has 1 additional Touch sensor.
- The IR photoreflexor counts the number of times visitors have arrived (which visitor has arrived).
- A long press on the Touch sensor causes the robot to return the value stored in the variable, so that the servo motor on the Mom moves its head left and right and the LED on Mom lights up.
- The little boy goes ahead to his Mom and stops after pushing its Touch sensor.