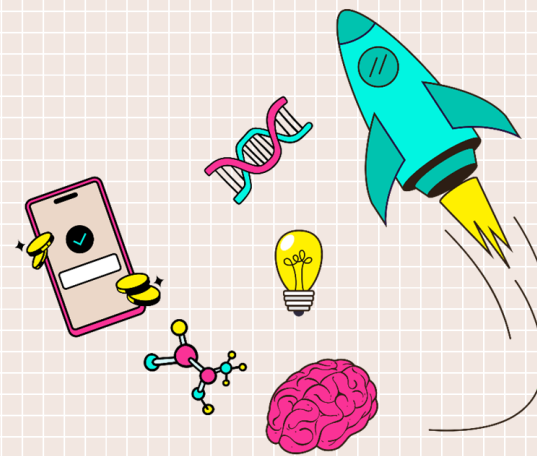


# We Did It In Poland!

**Lesson duration:**

50-60 minutes

**Age group:** 5-6 years

## General objective



Presenting Poland to children as a country where extraordinary projects can be created and dreams can come true. Fostering a sense of pride in Polish scientific achievements that bring recognition to our country.

## Specific objectives



- learning about examples of Polish inventions and feeling pride in these achievements;
- developing children's curiosity through contact with modern technology that benefits people;
- strengthening children's self-esteem and building a positive self-image by accepting their ideas;
- stimulating and developing expressive thinking through chosen forms of verbal, movement, musical, and artistic activity;
- developing imagination by creating their own inventions and finding new, creative uses for familiar objects;
- creating conditions that encourage children's openness to cooperation and creative action.

## Forms of work

- whole group activities;
- individual work.

## Methods

- guided conversation;
- activating methods: inspiration circle and brainstorming;
- practical activity method;
- expressive method – imagination exercises.

## Teaching aids

- a hat or cap, cardboard boxes of various sizes, several sticks, toilet paper rolls, plastic cups, newspapers, strings, a few scarves, a watch, a plastic plate, balloons;
- a cardboard box – “Polish Innovation Box”;
- illustrations showing Polish inventions;
- art materials: paper, glue, scissors, cardboard, foil, colored paper, stickers, glitter, boxes, fabric scraps, corks, buttons;
- any upbeat, dynamic music.

## Lesson Flow

### 1. The hat of ideas

The children sit in a circle. The teacher shows them a magical hat and explains that it is **the hat of ideas**. When someone puts it on, they receive a superpower – the ability to invent new things or come up with unusual uses for familiar objects.

The teacher then places various objects in front of the children: cardboard boxes of different sizes, several sticks, toilet paper rolls, plastic cups, newspapers, strings, a few scarves, a watch, a plastic plate, balloons, etc. The teacher puts on the hat and chooses one of the objects, explaining a creative use for it (for example, *a dollhouse* or *a dice cube*).

Next, the hat is passed to a child, who shares their own idea with the group. After each idea, the children make a gesture of appreciation – for example, they **clap**, shout **WOW!**, or say **Great idea!**

The preschoolers can also look around the classroom to find other

objects they'd like to transform into something new or give a surprising new use.

The main rule of the game is that **every idea is good and accepted!**

## **2. The box of polish innovations**

*In Poland, there are many people who come up with inventions that help not only our country but also people all over the world. This kind of activity is called innovation. An innovation is the creation of a new or improved product or service that is significantly different from what existed before. In this "POLISH INNOVATION BOX", there are illustrations showing famous inventions created in our country.*

The children draw cards from the box with pictures of Polish inventions **(Appendix No. 1)**. After each draw, the teacher asks if the children know what it is and what it might be used for. Then, the teacher explains what each invention actually does.

**Bionic Pancreas:** *This is a very clever invention! Polish scientists 3D-printed a real human organ! Thanks to it, sick people can feel better. It's like magic but real!*

**Parcel Lockers:** *These are boxes where our parcels are delivered! Thanks to them, we can pick up a package even at night! They were invented by Mr. Rafał from Poland.*

**Mars Rover:** *This is a robot that explores planets where humans cannot land, like Mars. The rover can do many things – it drives over rough terrain, climbs rocks, and overcomes obstacles. It was created by young people who once went to preschool and school – just like you – and had big dreams! What sounds do you think a rover might make? How does it move?*

**Eye Payment:** *This is a way to pay without using money, a bank card, or even a phone! You just look at the screen and... it's paid! This was also invented in Poland!*

**VIDRE+:** *This is a Polish "magic sticker"! It works in such a way that fruits and vegetables stay fresh for longer. Why do you think someone came up with this idea?*

**BLIK:** *Just tap your phone, enter a code and that's it! You can pay for*

*your shopping without a wallet! And yes, it was invented by Poles too! How many people do you think had to work on this?*

**Eleven Labs:** *This is a program that allows a computer to speak with a human voice! Imagine – it can read fairy tales and news out loud just like a person! Would you like to have this invention at home?*

**Bursztyn Rocket:** *A real rocket made in Poland! And what's more, it runs on eco-friendly fuel.*

**CoolCryo – Healing with Cold:** *A special machine that treats sick people using cold! It freezes and heals diseased cells while leaving the healthy ones untouched.*

*More innovations and printable cards for classroom use can be found on [the website We Did It in Poland](#).*

### **3. Polish inventions dance**

The teacher invites the children to use movements to show how they imagine Polish innovations work. The teacher can also play rhythmic music and encourage them to dance the **“Polish Inventions Dance.”**

- Mars Rover
- InPost Parcel Lockers
- BLIK
- Bursztyn Rocket, etc.

### **4. I Can Do It In Poland!**

*If such amazing things have been invented in Poland, then you can also create something extraordinary! What kind of invention would you like to make to help others or make your own life easier?*

The children create their own inventions. They can use unusual materials such as cardboard, aluminum foil, plastic wrap, glitter, and other craft supplies.

At the end, each child presents and talks about their invention. A Preschool Innovation Gallery can be arranged in any area of the classroom or school to showcase their work.



## Proposed adaptations

### Barriers and possible challenges

#### **"BALLOON FULL OF DREAMS" – CIRCLE DISCUSSION**

##### **Possible difficulties:**

- difficulty with spontaneous speaking,
- shyness and stress related to speaking in front of the group,
- lack of ideas (creative block),
- distractibility and hyperactivity.

##### **Adaptations:**

##### **The child may:**

- show their idea with a gesture instead of words,
- whisper to the teacher, who then repeats the child's idea to the group,
- say just a single word: "ship," "rocket," "home."

##### **The Teacher:**

- **asks closed questions:**  
"Could this be a vehicle?"  
"Is it something for playing?"
- **suggests sentence completion:**  
"This could be..."

##### **For children with concentration difficulties:**

##### **Shortening the speaking time:**

- max. one sentence per child,
- a dynamic pace – **pass the hat quickly.**

##### **Rule: "Everyone says one thing."**

##### **For children with speech impairments:**

- The child chooses a picture with an idea (previously prepared pictograms: house, rocket, robot, etc.).
- The teacher speaks for the child, e.g. "Asia chose a robot – a robot can be made from the box."

**For children with sensory sensitivities:** the option not to wear the hat – the child holds the hat in their hands or points to the next participant.

## **SECTION: "BOX OF POLISH INNOVATIONS"**

### **Possible difficulties:**

- difficult vocabulary ("bionic pancreas," "innovation"),
- difficulty understanding abstract descriptions,
- information overload,

### **Adaptations**

#### **Simplified language:**

- Instead of a definition, the teacher can say: "This is something invented to help people."
- Each invention – one simple sentence + an example:

**Paczkomat:** "It's like a locker for parcels – you can pick up a gift by yourself."

**Bionic pancreas:** "Doctors made a body part to help people who are ill."

**Rover:** "A robot that drives in space where a person can't go."

**BLIK:** "You pay with your phone instead of a wallet."

### **For children with attention difficulties:**

- use **a maximum of 3 inventions** instead of 7–8,
- ask simple questions such as: "Where would we use this?" "Does it help people – yes or no?"

## **SECTION: MOVEMENT – DANCE OF POLISH INVENTIONS**

### **Possible difficulties:**

- **movement inhibition,**
- **need for clear movement models,**
- **coordination difficulties.**

### **Adaptation:**

- The teacher demonstrates the movement together with the child.
- Instead of dancing: imitate using only the hands – driving the rover: hands like wheels; a rocket: hands up; a parcel locker: opening doors.

## **ART ACTIVITY: "I CAN DO IT IN POLAND TOO"**

### **Possible difficulties:**

- fine motor difficulties,
- poor task organization,
- giving up quickly,
- difficulty coming up with an idea.

## **Adaptations**

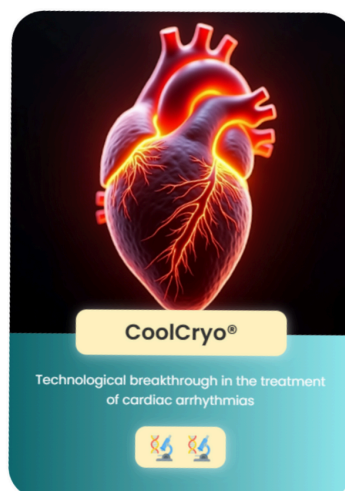
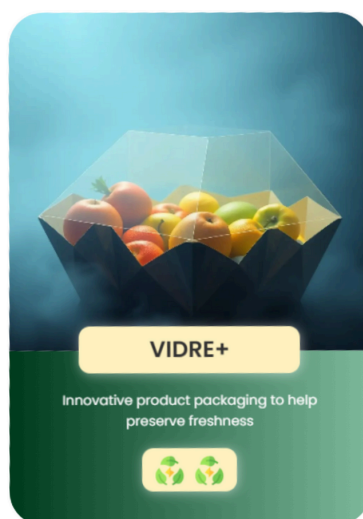
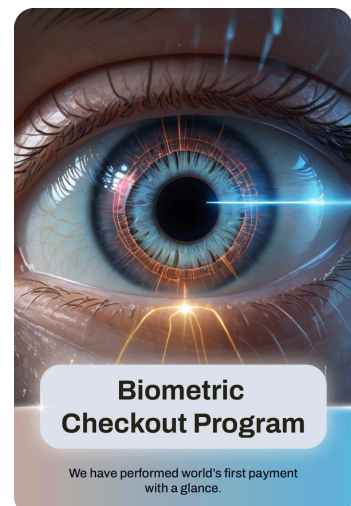
### **For children with manual difficulties:**

- ready-to-stick elements (wheels, strips, triangles),
- a limited number of materials,
- instead of cutting – tearing or using stickers.

### **Choice templates:**

“Do you want to make: a robot, a vehicle, or a rocket?”

## Appendix no. 1 – cards of polish innovations



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