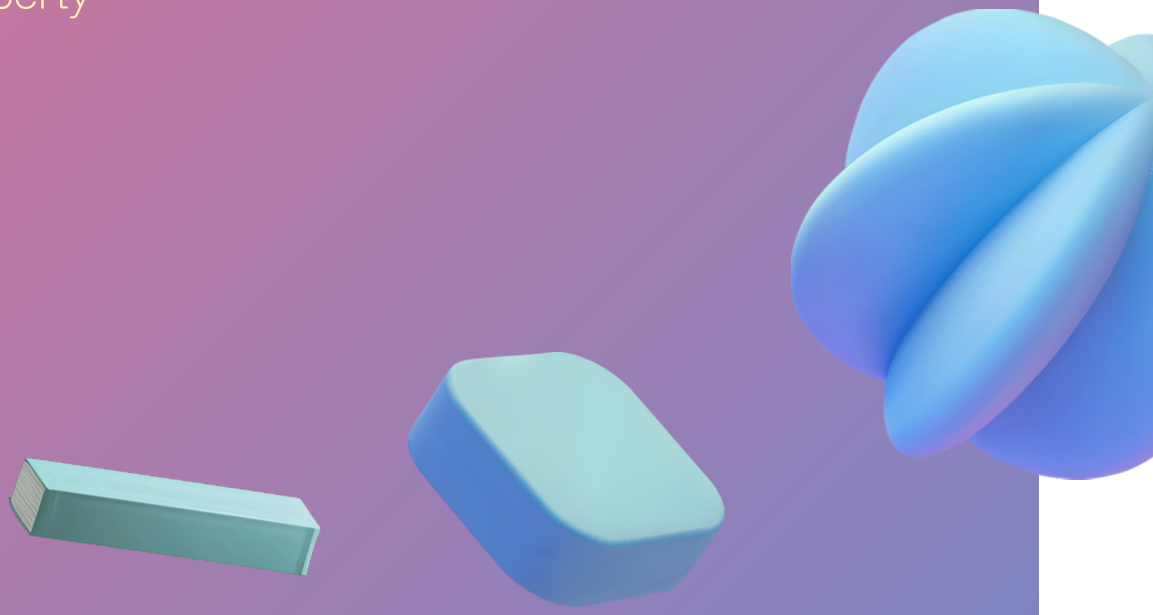
AI for Children

Artificial Intelligence Curriculum for Elementary and Secondary Schools

Art Education I

The Running Wolf and the Walking Lady Liberty



kurikulum.aidetem.cz/en

Created by: Eva Nečasová
Methodological consultants: Anna Babanová, Peťa Dovhunová
Expert guarantors: Pavel Kordík, Mikuláš Zelinka
Language proofreading: not yet done
Last update: 01/2025
Version: 03

National Pedagogical Institute of the Czech Republic

We create methodologies in cooperation with the National Pedagogical Institute.

Form for comments

The pilot educational program "Artificial Intelligence for Primary Schools 2022/23" was implemented by the Prague Innovation Institute as part of the iKAP II – Innovations in Education project. Registration number: CZ.02.3.68/0.0/0.0/19_078/0021106.

EUROPEAN UNION
European Structural and Investment Funds
Operational Programme Research, Development and Education

MINISTRY OF EDUCATION, YOUTH AND SPORTS

Prague innovation institute

The Running Wolf and the Walking Lady Liberty

A few words to begin

Dear teacher, dear teacher,

You are receiving a Teaching material that was created to support education in the field of artificial intelligence. This lesson is intended mainly for children in the first grade (although adults can also enjoy it). It is a fun game that uses the application of artificial intelligence to animate characters. As part of the activity, students create and animate a character from a topic of your choice – for example, based on a book, film or theater performance. No knowledge or skills are required. The goal is to show students the possibilities of using AI in their own work. Thank you for your desire, energy and courage to introduce students to the topic of artificial intelligence.

– AI for Children initiative team

10 min

Animated drawings

This lesson uses the Animated Drawings tool, which animates children's drawings of characters. It's online, free, and no registration is required.

These teaching materials were translated using ChatGPT.
Please note possible imperfections in the expressions or wording.

Lesson presentation in PDF

Editable presentation in Canva

Lesson Overview

Recommended Age, Lesson Length
3rd to 5th grades of elementary school, the subsidy depends on your concept of the lesson.

Building Blocks
Animation.

What Are the Students Learning?
The use of generative artificial intelligence tools can be beneficial in visual creation.

Why Are They Learning This?
Based on their experience using generative AI in visual creation, they are finding new ways to collaborate with this technology.

How Do We Know They Have Learned It?
They will create a visual representation of the character and use generative artificial intelligence to make it move.

Tools
Teacher: Projection equipment, presentation.
Students: Drawing, painting or modeling supplies, phone or tablet, internet connection.

Bloom's Taxonomy
Creation: Students create an original animated character, combining their artistic skills with modern digital technologies.
Evaluation: Evaluate the success of the animation and adjust the result using in-app adjustments (e.g., adjusting reference points or repeating the animation).

Digital Competence
Use and involvement.
Creation and expression.
Efficiency and innovation.

Five Big Ideas
5-D-I AI for social good (democratization of artificial intelligence).

Note: Gender equality is key for AI for children, but for brevity we use masculine formulations in our methodologies.

Glossary of terms

Artificial Intelligence (AI)
None of the definitions of the term artificial intelligence are actually fixed, but they all agree that it is a system that simulates human thinking and actions.
Artificial intelligence usually takes the form of a computer program and is used to solve tasks that previously required considerable human intellect and were therefore the domain of humans.
It is also, among other things, a scientific field with origins dating back to the first half of the 20th century. It seeks not only to understand intelligent systems, but especially to create them.

Machine Learning (ML)
Just as humans can learn from examples and experience, so too can man-made machines.
Machines use a method called machine learning to learn, which allows artificial intelligence systems to be more than just a set of pre-programmed actions, but to come up with new solutions on their own.
The goal of machine learning methods is to discover patterns occurring in large amounts of data.

How artificial images are generated
Generative models allow anyone to easily create images based on text inputs known as prompts. From a user perspective, the process is simple – you describe what you want to see in words, and the AI generates the image. Currently, two main types of generative models are used:

Diffusion Models (Dall·E, Midjourney, Stable Diffusion…)
Diffusion models are trained by adding noise to images and then learning how to remove it. When generating an image, the model starts from pure noise and gradually reconstructs a realistic image based on the prompt.

GAN – Generative Adversarial Networks (StyleGAN…)
Images are generated using two neural networks – a generator and a discriminator. They compete with each other, pushing the generator to improve. The generator tries to create an image that looks real, while the discriminator judges whether the image is fake or real. This back-and-forth process, in which both networks are repeatedly trained, continues until the final image is produced.

Introduction

Welcome to the AI for Children teaching material for Art Education! ☺ This guide will show you how to easily create animated characters in just a fraction of the time – whether it's a skipping wolf in a skirt or the walking Statue of Liberty.

Although designed primarily for art classes, the material also lends itself well to cross-curricular activities or integrated thematic units. Start by reading a story with your students – or build on a theatre performance, a film, or a historical period you're currently teaching (hereafter referred to as the [topic]).

Students then choose one character from the [topic], describe them, highlight their key features, and create an illustration. They photograph their artwork, upload it into the Animated Drawings app, and try out various animation styles.

They can download selected animations as videos and continue working with them – for example, by creating their own animated story. You might also encourage a collaborative school project in which each student animates one character, and together they edit the clips into a short animated film or music video.

Choosing a character within the [topic]

Think about it.

Clusters
Students write short responses on sticky notes. Then, group similar ideas together as a class.

Reflect on the [topic], choose one character, and explain why.
Introduce students to your selected [topic] – this could be a theatre performance, film, story, fairy tale, historical period, current event in the media, etc. Students pick one character that interests them and explain why they want to work with that particular figure. For example, in this material, we've chosen the fairy tale of Little Red Riding Hood to demonstrate the process.

Creating a character and animation

Activity 1

Describe the character you've chosen to work with.
Students, individually or in groups, will write the main attributes of their chosen character on paper:
1) Physical traits – e.g., has big teeth, is hairy, has short legs...
2) Symbolic items – e.g., a red dress, cape, basket, crown...
3) Personality traits – e.g., cheerful, curious, brave, talented...

Activity 2

Create an artistic version of your chosen character.
Students can draw, paint, sculpt, sew, assemble from natural materials, collage, or create digitally (e.g., 3D model, digital drawing...). They can also take a photo of themselves, a friend, or use a plush toy.

General tips:
1) The character should have a full body (head, torso, arms, legs).
2) Arms and body should be clearly separated (arms not stuck to the body or behind it).
3) Legs should not be merged into one.

For an ideal layout of body parts, see the example image of the wolf in a skirt →

Activity 3

Presentation slides 02 and 03

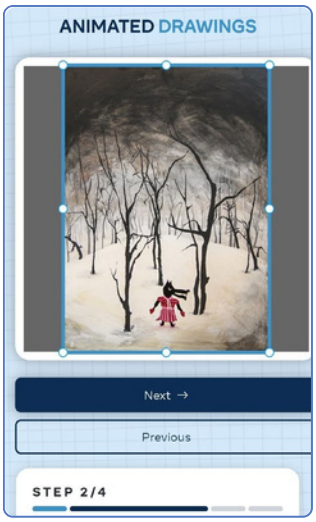
Show students some finished animations in the presentation on slide 02. Then share the link to the Animated Drawings app, which you'll find in the presentation on slide 03.
The Animated Drawings app can be used for free and without registration on most common devices: smartphones, tablets, Chromebooks, or laptops. You can access it here: sketch.metademolab.com/canvas. The app uses machine learning to generate animations from drawings and was developed by researchers at Meta. Below is a step-by-step guide on how to use it.

sketch.metademolab.com/canvas

Presentation slide 04–09

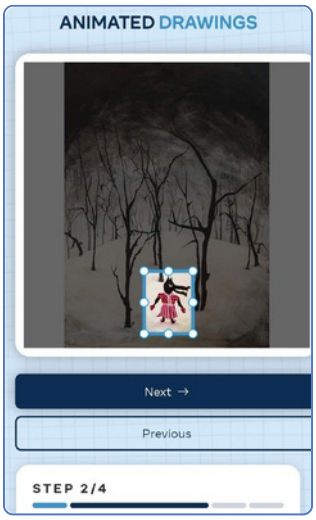
1

Upload a photo
Tap "Upload Photo." If you don't have the picture saved on your device yet, take a photo of the artwork using a camera.



2

Crop the character
Try to be as precise as possible. Then move to the next step by clicking the "Next" button.



3

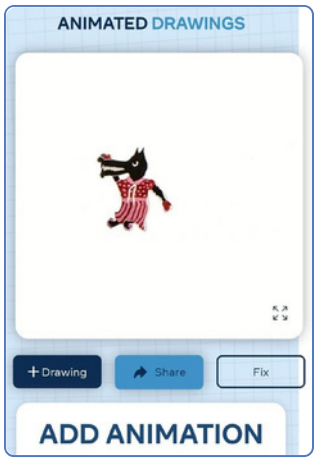
Mark the character
Use the brush tool to carefully highlight the character's body. You can choose from three brush sizes. Mistakes can be erased using the eraser tool (which also comes in different sizes). You can undo steps using the arrow next to the "Reset mask" button (which clears the entire mask).

4

Adjust the reference points
Drag the reference points to match the center of the head, eyes, ears, shoulders, torso, joints, and limbs. Then click the “Next” button.

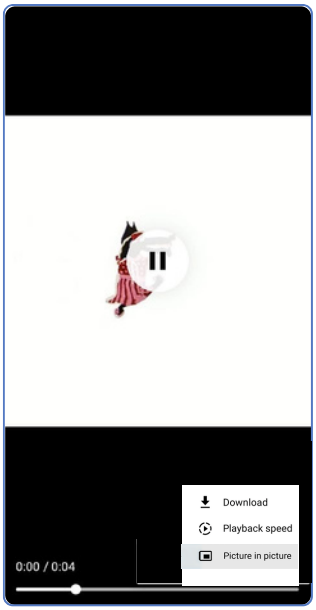
5

Your animation is ready!
In just a moment, the basic animation will be generated. You can create more animations by scrolling down and clicking “Add animation”. If something doesn’t look right, click “Fix” to go back a step.



6

Share or download your video
You can share your animation using the “Share” button. To save the video, click the expand icon ⛶ in the bottom right corner of the animation window to open it in full screen. Then click the three-dot menu in the lower right and select “Download”.



More to explore

The Animated Drawings app can be used for countless creative projects. We’ve got a few ideas to get you started – but we’re sure your students will come up with even better ones!

Animated film or fairy tale
Students can create a short animated movie or fairy tale, featuring their animated characters in various scenes. They can divide roles among themselves – for example: scriptwriter, animator, sound designer, narrator… The story can be inspired by literature or a historical event.

Music video
Students choose a song (or even create their own!) and make a music video in which their animated characters move to the rhythm of the music. They can combine different animations, layer backgrounds, and add visual effects. The video can be shared as a school project on the school website or YouTube.

Digital Theatre Play
Select an existing theatre piece and create a fun remake. Each student can animate one character. They can add voice-overs, props, and backgrounds, and connect multiple animated scenes into a complete story. This is a great opportunity to integrate drama and language education.