

Aktivnost v Scratchu

Kaj je Scratch in kako ga lahko prenesete?

Scratch je programski jezik, ki ima svoje samostojno razvojno okolje. Je brezplačen in enostaven za uporabo. S pomočjo Scratcha se lahko učenci seznaniijo z različnimi vrstami programiranja, kot so:

- **Paralelno programiranje:** Programi, ki se izvajajo vzporedno.
- **Objektno usmerjeno programiranje:** Vsak objekt se programira posebej, na primer liki ali ovire.
- **Programiranje na podlagi dogodkov:** Objekt se premika na podlagi dogodkov, na primer ob pritisku na gumb.

Scratch lahko uporabljate na spletu ali kot samostojno aplikacijo na računalniku/tablici.

Spodaj so navedeni načini prenosa ustreznega programa:

- **Spletna različica:** Scratch lahko uporabljate na povezavi:

<https://scratch.mit.edu/projects/editor/>

- **Namizna aplikacija:** Scratch lahko prenesete na svoj računalnik s povezave:

<https://scratch.mit.edu/download>

Sledite navodilom za vaš operacijski sistem.

Aplikacijo lahko prenesete tudi iz Microsoft Store ali Mac App Store.

- **Mobilne naprave (telefon/tablica):** Scratch lahko prenesete iz trgovine Google Play ali App Store na svoji napravi. (**Google Play**, **App Store**, itd.).

Program pripovedovanja o ženskah v znanosti

Cilji aktivnosti

Učenci:

- bodo sodelovali v skupinah,
- bodo spoznali osnove programiranja,
- bodo razvijali algoritmično razmišljanje,
- bodo razumeli, kako lik lahko govori,
- se bodo naučili poiskati dejstva na spletu.

Orodja in materiali, ki jih potrebujete

- Tablica ali računalnik (prenosni/namizni) z že nameščeno aplikacijo Scratch.
 - Internetna povezava za iskanje informacij na spletu ali knjige s ključnimi informacijami.
- Učenci lahko informacije poiščejo tudi doma za domačo nalogo pred izvedbo aktivnosti.

Opis aktivnosti



Uvod

- **Učence uvedite v temo z vprašanji, kot so: Katera znanstvenica ti je znana iz zgodovine?**
- **Predstavite učencem program Scratch.**

Aktivnost

Cilj te aktivnosti je ustvariti program pripovedovanja zgodbe o znanstvenici (ženski na področju znanosti ali tehnologije). Primer temelji na zgodbi o Marie Curie.

- Učenci se razdelijo v skupine po dve do štiri osebe, vsaka skupina izbere eno znanstvenico (Marie Curie, Grace Hopper, Katherine Johnson, Hedy Lamarr, Ada Lovelace, itd.)
- Najprej poiščejo dejstva o izbrani ženski.
- Poiščejo lahko sliko ali lik, ki ga bodo uporabili kot pripovedovalca zgodbe.
- Lahko dodajo slike kot ozadje za svojo zgodbo (ni obvezno).
- Uporabijo lahko gibanje za bolj interaktivno pripoved (ni obvezno).
- Lahko ustvarijo ozadje z navdihujočim citatom izbrane osebe (ni obvezno).

Osnovni program lahko najdete na spodnjih slikah.

Navodila za lik pripovedovalca v Scratchu:

```

when green flag clicked
  go to x: 155 y: -35
  point in direction 90
  show
  switch backdrop to Warsaw
  say Hello! My name is Maria Skłodowska-Curie. You may also know me as Marie Curie. I was born in Warwaw, Poland in 1867. for 8 seconds
  say From a young age, I was fascinated by science, but as a woman, I was not allowed to attend university in my own country. for 8 seconds
  switch backdrop to Paris
  glide 2 secs to x: -155 y: -35
  point in direction -90
  say To pursue my education, I moved to Paris, where I studied physics and mathematics at the Sorbonne. for 8 seconds
  say In Paris, I met Pierre Curie, a brilliant physicist. We shared a love for science, and soon, we married and worked side by side in our research. for 8 seconds
  switch backdrop to Lab
  say My greatest discovery came when I studied a mysterious energy that some materials emitted. for 8 seconds
  say Through my experiments, I discovered two new elements: polonium, which I named after my homeland, and radium. for 8 seconds
  switch backdrop to Nobel
  glide 2 secs to x: 0 y: -35
  say I was the first woman to ever win a Nobel Prize—in Physics, in 1903, alongside Pierre and Henri Becquerel. for 8 seconds
  say Later, in 1911, I won a second Nobel Prize, this time in Chemistry, for my work on radium and its properties. for 8 seconds
  say To this day, I remain the only person to have won Nobel Prizes in two different sciences for 8 seconds

  switch backdrop to Lab
  glide 2 secs to x: 155 y: -35
  point in direction 90
  say During World War I, I developed mobile X-ray units, called 'Little Curies', to help doctors treat wounded soldiers on the battlefield. for 8 seconds
  say My research paved the way for many medical advancements, including cancer treatments using radiation therapy. for 8 seconds
  say I devoted my life to science, and though my exposure to radiation ultimately harmed my health, I do not regret my work. for 8 seconds
  say I believed that science should be used to benefit humanity, and that knowledge belongs to everyone for 8 seconds
  say To young women in science, I say: for 8 seconds
  say Be curious for 2 seconds
  say Be determined for 2 seconds
  say and never let anyone tell you that you cannot achieve greatness for 5 seconds
  switch backdrop to υπόβαθρο2
  hide
  
```