

33-dars. SCRATCH MUHITIDA SODDA MULTIFILMLAR YARATISH

Avvalgi darslarda sizlar bilan spraytlar yordamida animatsiya dasturlarini yaratdik. Animatsiya ham siz yoqtirgan multfilmlarning bir qismi hisoblanadi.

Multfilm o'zi nima?

Uning to'liq atamasi – **multiplikatsion film** [lotin. multiplikatio (ko'paytirish) va ing. film (plenka)] kinoteatr, teleko'rsatuv va kompyuter ekranlarida ko'rishga mo'ljallangan film.

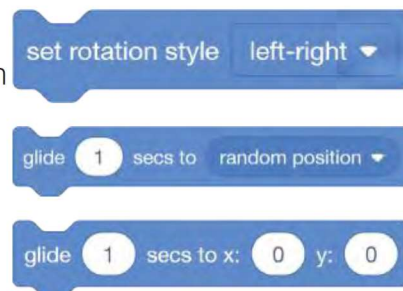
Multfilmlar yaratilish texnologiyasida bir necha san'at yo'nalishlari jamlangan: rasm, harakat, tovush, musiqa va rejissura, ya'ni multfilm ssenariysi. Ssenariydagi voqealar ketma-ketligi ham dasturlash jarayoniga o'xshash bo'ladi.

Scratch dasturida sodda multfilmlardan murakkab o'yin dasturlari yaratish mumkinligini aytib o'tgan edik. Bugungi mavzuda **"Akvarium"** deb nomlangan loyiha yaratamiz va uni birinchi kichik multfilm sifatida saqlab qo'yamiz.

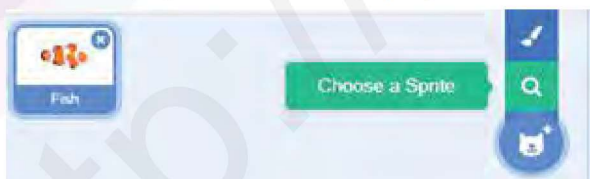
Bajarish texnologiyasi

Dastlab spraytlarni faqat o'ng va chap tomonga harakatlantirish bloki bilan tanishamiz. U baliqning akvariumda harakatlanish holatiga mos keladi.

Yoki suzish bloki yordamida ham spraytlarni harakatlantirish mumkin.



1. Scratch dasturini ishga tushiramiz. **Choose a Sprite** → **Animals** papkasidan baliq spraytlaridan birini tanlaymiz:



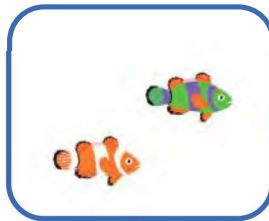
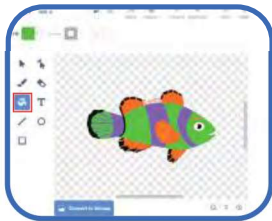
2. Baliq sprayti uchun skript hosil qilib, uni ishga tushiramiz. Ko'rib turibsizki, baliq sahnadan chiqib ketmasdan harakat qiladi.

3. Ikkinchi baliqni hosil qilish uchun sprayt ikonkasiga sichqonchani o'ng tugmachasini bosamiz va hosil bo'lgan ro'yxatdan **duplicate** ko'rsatmasini tanlaymiz.



4. Sahnada 2-baliq hosil bo'ladi. Unga boshqa rang beramiz. Buning uchun **Costumes** bo'limiga o'tib, uskunalar panelidan mo'yqalam va **Fill** uskunasi tanlaymiz.

5. Spraytlar paneliga o'tamiz, ikkinchi baliqning masshtabini 80 ga o'zgartiramiz. Sahnada 2 xil baliq hosil qildik.



6. Endi sahnamizni manzarali rasm bilan bezaymiz. Spraytlar panelidan Choose a Backdrop – Fon tanlash bo'limiga o'tamiz va **UnderWater-2** tasvirini tanlaymiz.

Skriptni ishga tushiramiz va tomosha qilamiz. Bu loyihaga ixtiyoriy qahramonlarni, musiqa va matnni qo'shish mumkin. Loyihamizni **"Akvarium"** nomi bilan saqlab qo'yamiz.

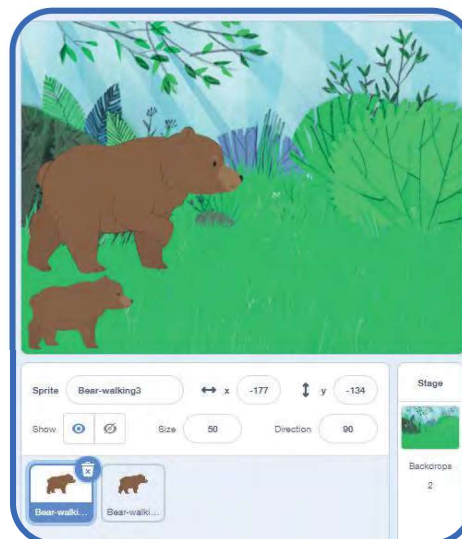
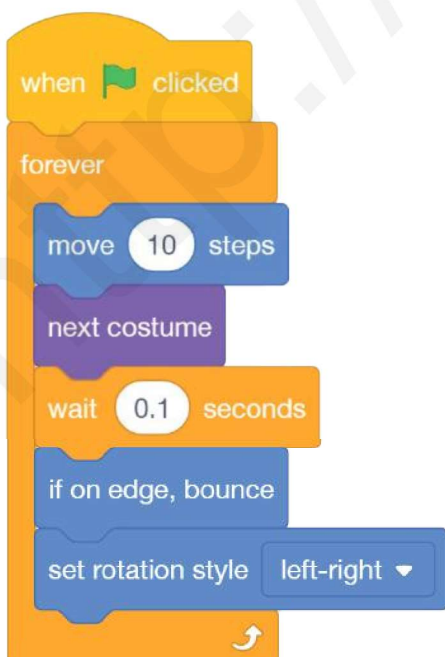
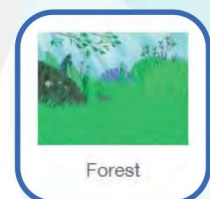
2-mashq. "Ona bola ayiqlar" loyhasini yaratish uchun 1-mashq skriptidan foydalanish mumkin. Faqat bu loyihada kostyumlar ham ishlatiladi.

Bajarish texnologiyasi

Dastur kutubxonasidan sahna foni uchun **Forest** rasmini, qahramonimiz ayiq spraytini esa **Animals** → **Bear-walking** bo'limidan tanlaymiz. Bu ayiqning 8 ta kostyumi mavjud.

Birinchi ayiqcha uchun skript yozib bo'lgach, **Duplicate** amali yordamida ikkinchi spraytni hosil qilamiz.

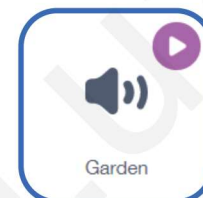
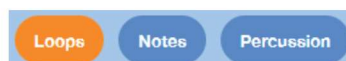
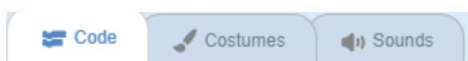
Ikkinchi spraytda ham xuddi shunday skript hosil bo'ladi.



1-ayiq sprayti uchun o'lchami 100 % va $x = -132$, $y = -84$ pozitsiyasini belgilaymiz.

2-ayiqcha sprayti uchun o'lchami 50 % va $x = 33$, $y = -54$ pozitsiyasini o'rnatamiz.

Loyihamizga **Sounds** → **Loops** → **Garden** musiqasini tanlaymiz va skriptga o'zgartirish kiritamiz.

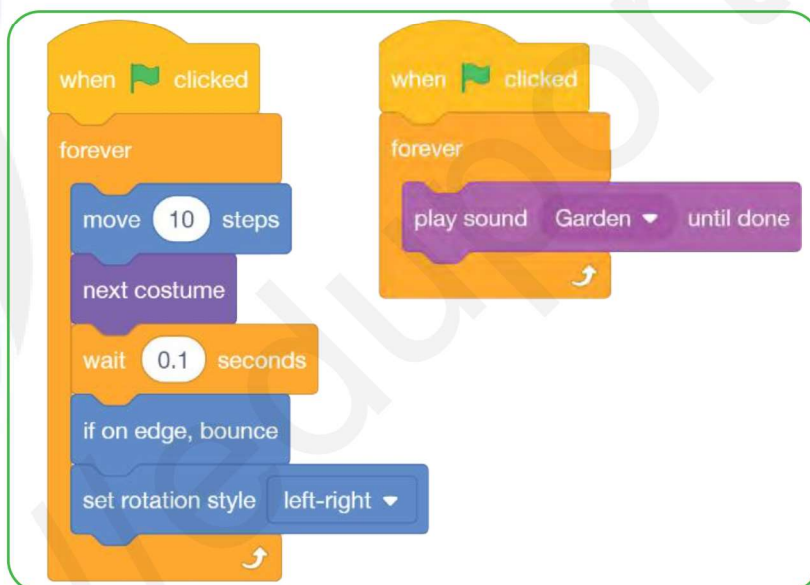


Qo'shimcha yozilgan skriptni ixtiyoriy sprayt kodiga qo'shish mumkin.

Dasturni ishga tushiring va tomosha qiling.

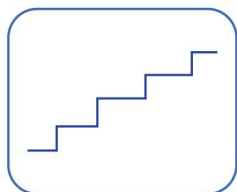
Dasturni to'xtatish uchun  tugmachasini bosing.

Dasturni saqlab qo'yish uchun **File** → **Save to your computer** ko'rsatmasini bajaring.

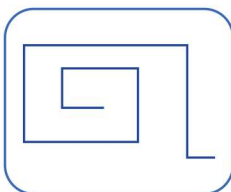


Mustaqil vazifalar

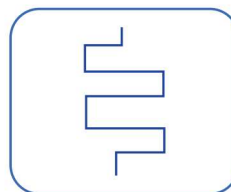
1. Spraytlar kutubxonasidan istalgan qahramonni tanlang va uni sahnada quyidagi algoritm bo'yicha harakatlantiring:



1. Zina



2. Labirint



3. Prujina

UYGA VAZIFA



1. Berilgan mavzular bo'yicha loyiha ishi yaratish va uni taqdim etishga tayyorgarlik ko'rish.
2. Barcha boblar bo'yicha sinov testlariga tayyorgarlik ko'rish.