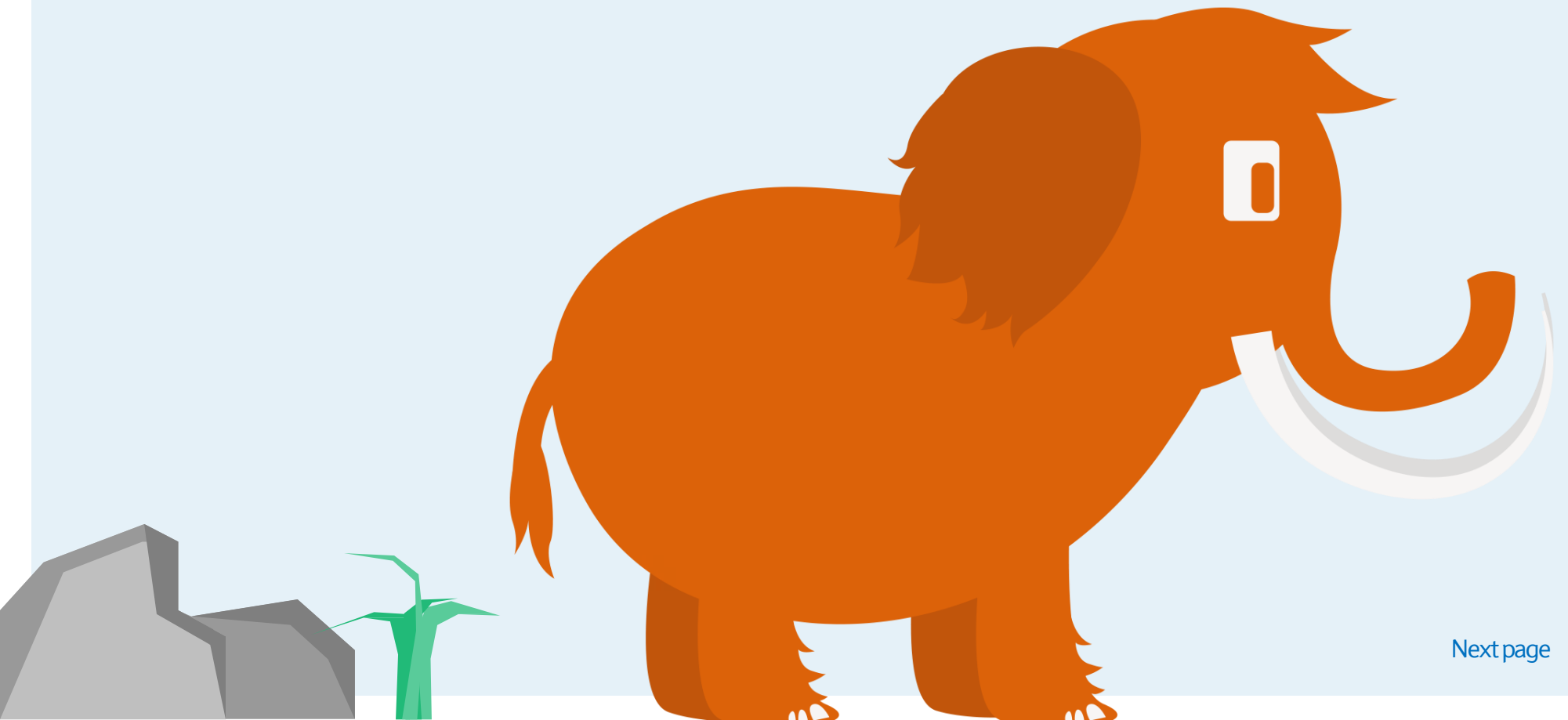


Student workbook

Shark game

Code Playground



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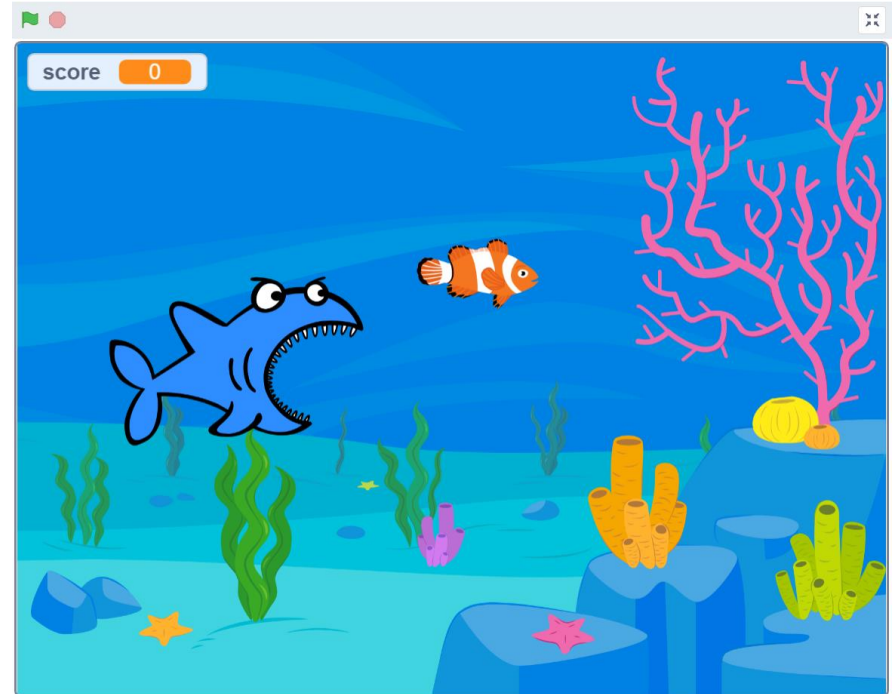
Shark game

Scratch project

Learn the basics of sprites, backdrops, and scripts with our first ever Code Playground project. Animate and control the shark to eat the fish until you reach the maximum score.

This project is designed for Scratch 3.0.

Hope you enjoy the game!

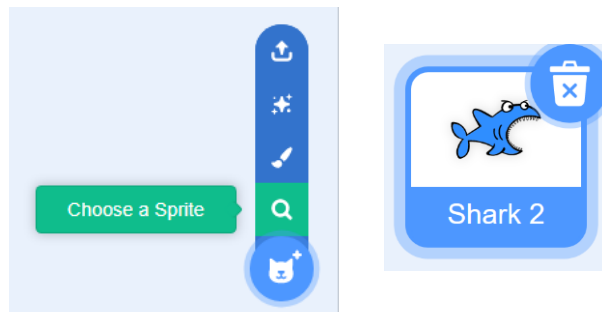
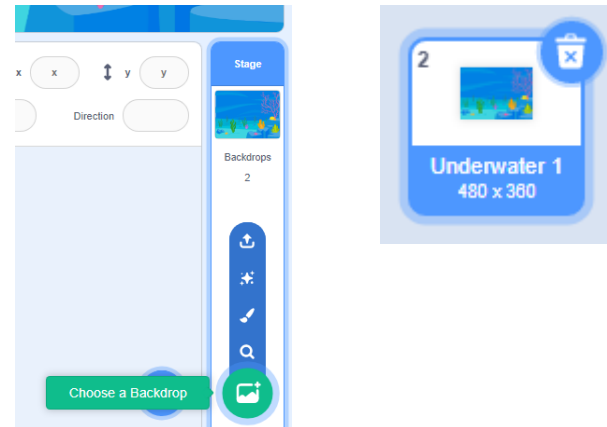


Shark game

Scratch project

Step 1

You'll need to add a backdrop for this project. Choose from the backdrop library to use as your stage. We've used the 'Underwater 1' backdrop.



Step 2

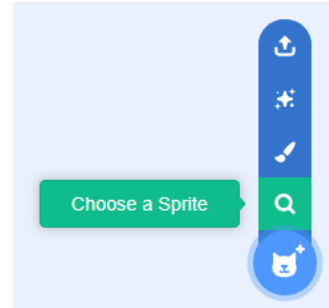
Let's choose your character, first click on the magnifying glass to go to the sprite library. From there select 'Shark 2' as your first character

Shark game

Scratch project

Step 3

Next click 'Choose a sprite' again and this time select 'Fish'. We'll be using this sprite as our second character.

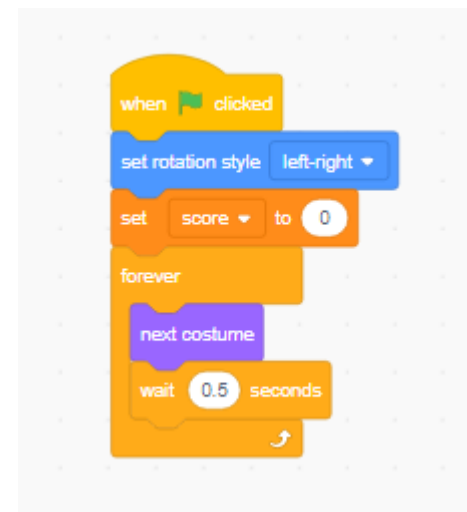
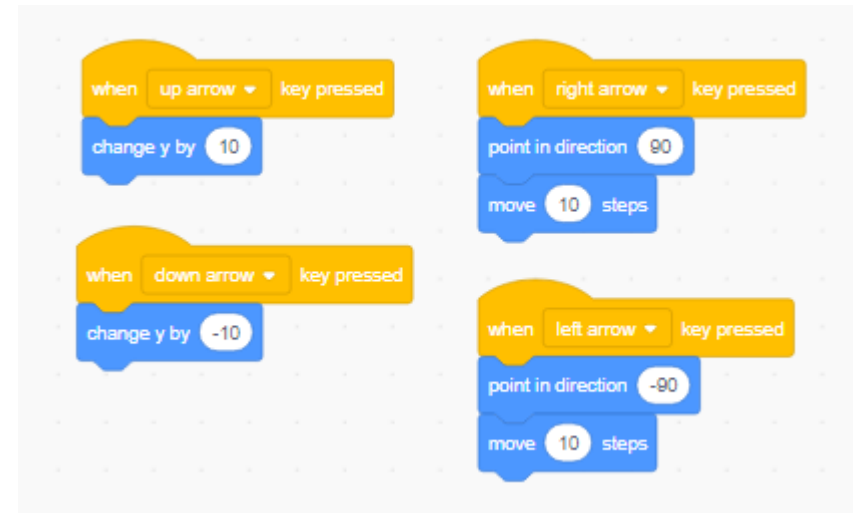


Shark game

Scratch project

Step 4

Next you'll need to add these scripts to the shark sprite.

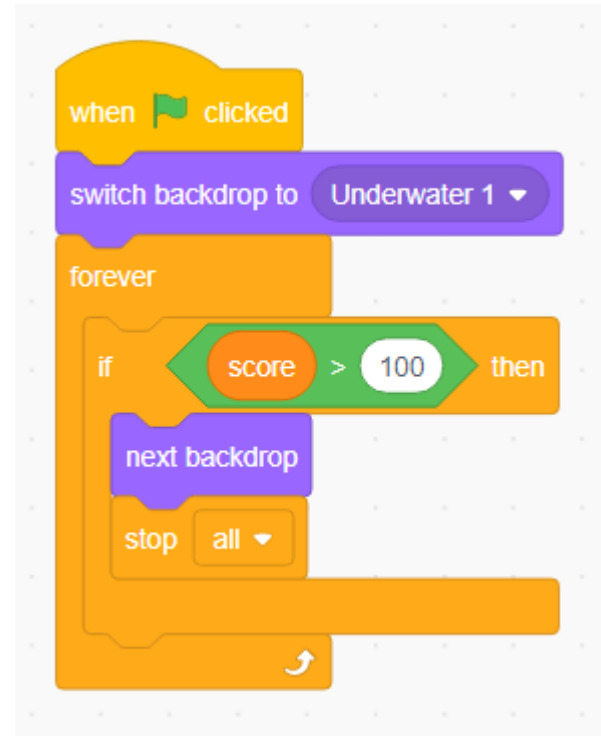


Shark game

Scratch project

Step 4

Now add these scripts to your stage to control the end of the game.



Shark game

Scratch project

Step 5

Finally you'll need to code the fish. Add these scripts to make the fish move and control what happens when the Shark catches the fish.



```
when green flag clicked
  set rotation style to left-right
  show
  forever loop
    move 20 steps
    turn pick random 1 to 10 degrees
    wait 0.5 seconds
    if on edge, bounce
    turn pick random 1 to 10 degrees
    if touching Shark 2 ? then
      change score by 10
      hide
      wait 3 seconds
      go to x: pick random 240 to -240 y: pick random 180 to -180
      show
```

Shark game

Scratch project

	Targets	Hints	Done
Level up!	Make another fish for the shark to eat by duplicating your fish sprite	You can right click on your fish sprite in the sprite area	
	Add a different colour 'bad fish' which reduces your score by 10 if you eat it	Duplicate your sprite, change costume, negative score	
	Introduce a 'GAME OVER' message when the game finishes and hide the fish	Create a 'GAME OVER' sprite,	
	Add a popping sound when eating a good fish		
Level up!	Ask the player to enter their name at the start of the game and display it on screen	'Ask and wait', use 'broadcast' when the game has started to start the sprites moving	
	Create some backgrounds so that the bubbles appear to rise	Copy and edit backgrounds	
	Add a crab which walks across the sea bed		
	Add a gong sound when eating a bad fish		
Level up!	Control the shark with the mouse rather than the cursor keys		
	Change from using a maximum score to using a countdown timer to end the game	Use a variable called 'time', set to 30, wait 1 second, change by -1	
	Make the shark only chomp down when eating a fish	Have the fish 'broadcast' when they have been eaten and make the shark respond	
	Add a bubbles sound to play in the background all of the time until 'game over'	Forever, play sound until done	
Level up!	Make another 'bad' fish and make it chase the shark	Duplicate sprite, what did you use to make the shark follow the mouse?	
	Add an instructions screen at the start of the game	Add background until player enters their name	
	Make the crab do something interesting ...	Use your imagination and make something great!	

Shark game

Scratch project

Cheat sheet

Script for 'bad fish random'

```

when I receive start game
  show
  forever
    move 20 steps
    wait 0.5 seconds
    next costume
    turn pick random 1 to 20 degrees
    if on edge, bounce
    turn pick random 1 to 20 degrees
    if touching Jaws? then
      broadcast got me
      start sound Pop
      change score by 10
      hide
      wait 1 seconds
      go to x: pick random -240 to 240 y: pick random -180 to 180
  when I receive end game
    hide
  
```

Script for 'Good fish'

```

when I receive start game
  show
  forever
    move 20 steps
    wait 0.5 seconds
    turn pick random 1 to 20 degrees
    if on edge, bounce
    turn pick random 1 to 20 degrees
    if touching Jaws? then
      broadcast got me
      start sound Pop
      change score by 10
      hide
      wait 1 seconds
      go to x: pick random -240 to 240 y: pick random -180 to 180
  when I receive end game
    hide
    stop this script
  
```

Script for 'bad fish chasing'

```

when I receive start game
  show
  forever
    if distance to Shark > 10 then
      point towards Shark
      move 2 steps
    if touching Shark? then
      broadcast got me
      start sound Gong
      change score by -10
      hide
      wait 1 seconds
      go to x: pick random -240 to 240 y: pick random -180 to 180
  when I receive end game
    hide
  
```

Script for 'Shark'

```

when I receive start game
  show
  switch costume to Shark Closed
  forever
    if distance to mouse-pointer > 10 then
      point towards mouse-pointer
      move 5 steps
  when I receive got me
    repeat 2
      switch costume to Shark Open
      wait 0.1 seconds
      switch costume to Shark Closed
  when I receive end game
    hide
  
```

Script for 'crab'

```

when I receive start game
  show
  go to x: -200 y: -148
  forever
    move 10 steps
    if on edge, bounce
    wait 0.1 seconds
    next costume
  when I receive end game
    hide
  
```

Script for 'stage'

```

when clicked
  set score to 0
  set time to 30
  set player to 0
  ask What's your name? and wait
  set player to answer
  broadcast start game
  forever
    next backdrop
    wait 0.5 seconds
  when I receive start game
    repeat until time = 0
      wait 1 seconds
      change time by -1
  broadcast end game
  
```

Notes

Code Playground

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