

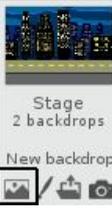
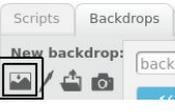
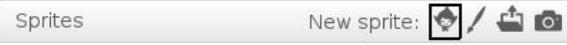


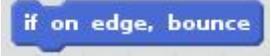
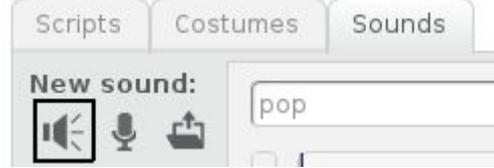
**LEARN PROGRAMMING
VIDEO GAME EDITION**

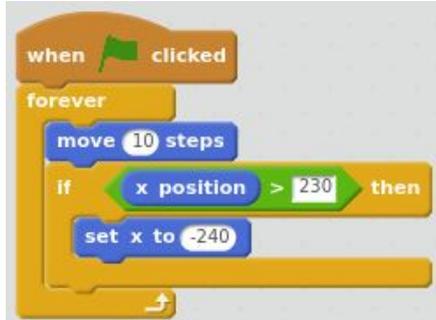
Frogger

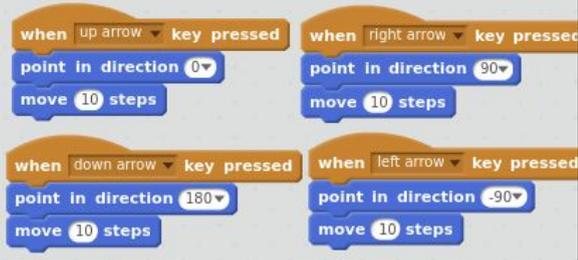
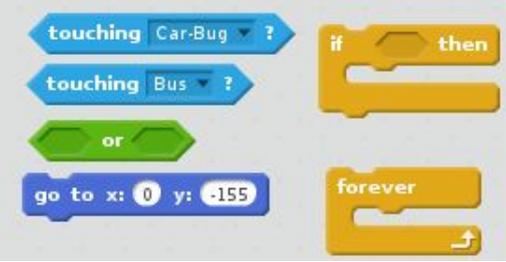
Frogger



Step	Challenge - The sprites	Hints	Done
1	Delete the cat	Delete the cat sprite by clicking on the scissors  at the top of the window and then on the cat.	<input type="checkbox"/>
2	Change the background to the city with a road	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>Click on the image icon in the bottom left in the stage area</p> </div> <div style="width: 45%;">  <p>Click on backdrops and then on the image icon and choose the city</p> </div> </div> 	<input type="checkbox"/>
3	Add the bus sprite	 	<input type="checkbox"/>
4	Add the beetle and the princess	 <p>To make it bigger or smaller by clicking on the icons  at the top</p>	<input type="checkbox"/>
5	Create the car sprite	 <p>To change the direction, you can click on  and then move the line in the circle  direction: -90°</p> <p>If the car is upside down, you can try different rotation style just below</p> <p>rotation style: </p>	<input type="checkbox"/>
CP	You should have all these sprites now.		

Step	Challenge - Let's move the bus	Hints	Done
1	<p>On the bus sprite: We want to make it move. So we add the script.</p> <p>Can you find all these blocks?</p>		<input type="checkbox"/>
2	<p>We want the bus to continue moving. We are going to make it turn around when it hits the edge.</p>	<p>Try adding the block below somewhere in your script.</p> 	<input type="checkbox"/>
3	<p>WOAH! The bus is upside down when it turns. We need to change that.</p>	<p>If you read step 5 of previous page, you should know how! Maybe rotation style?</p>	<input type="checkbox"/>
4	<p>We want sound! Let's add some noise to that bus. Add a new sound and select "Car Passing". Add this sound to your library of sounds.</p>		<input type="checkbox"/>
5	<p>We want to add this sound but we are going to add it to another flag clicked. We can have many flag clicked event because the program is "Multi-threaded" which broadly means it can do multiple things at the same time.</p>		<input type="checkbox"/>
6	<p>IT IS NOT WORKING, we can't hear the sound. It is because the sound is played every loop which happens way too fast. Try to change the play sound block to this one which will ensure it plays until the end. This will ensure that only one sound will be played at the time.</p>		<input type="checkbox"/>
CP	<p>Great job! The bus is running around the city!</p>		

Step	Challenge - Let's move the car	Hints	Done
1	On the car sprite: Make the car move when the game starts		<input type="checkbox"/>
2	For the car, we want it to go always in the same direction. So what we need to do is change the X position when the car hits the left side of the screen. We need to add a condition to execute that. We will need a few blocks to do that, you can see them on the right of this text. Try to find all those blocks.		<input type="checkbox"/>
	When you have them, we need to add them to our car script. So we add a condition that if X is greater than 230 (the far right of the game area) we set the X position to -240 (the far left side of the area)		<input type="checkbox"/>
3	You can also add the motorcycle sound in the cat sprite like we did for the bus.		<input type="checkbox"/>
CP	Great job! The car is going around the city forever!		

Step	Challenge - The beetle wants to cross the street	Hints	Done
1	<p>On the beetle sprite: Let's hook the up, down, left and right events to the beetle so that we can move the beetle around.</p>	 <p>+ down and right</p>	<input type="checkbox"/>
2	<p>Now your beetle is moving but when we pressed stop and start again, it does not go back to the starting position. Let's put it back to the start position when we press the flag x=0 and y=-155</p>		<input type="checkbox"/>
3	<p>Now, if the beetle hit the car, we will teleport the beetle to the start position so that we can still play. In order to do that, we need to detect if it hits the bus or the car. Find the blocks needed to do that in the beetle sprite.</p>		<input type="checkbox"/>
4	<p>Let's create the algorithm that will send the beetle to the starting point when there is an accident. In a forever loop, we need to detect if the beetle touches either the car or the bus and if so, send them to the starting point which is position X=0 Y=-155</p>		<input type="checkbox"/>
CP	<p>Great job! The game is almost ready to play!</p>		

Step	Challenge - The beetle and the princess want to cross the street	Hints	Done
1	On the princess sprite: We will say beetle help me please when the game starts.		<input type="checkbox"/>
2	Now we need to detect when the beetle touches the princess so that the princess can follow the beetle. So for the entire game, we add a condition if our princess touches the beetle.		<input type="checkbox"/>
3	When the princess touches the beetle, we need the princess to follow the beetle for the rest of the game. We need another forever loop that will make the princess move to the location of the beetle every time the beetle moves.		<input type="checkbox"/>
4	If the princess goes upside down when she moves, you need to change the rotation style of the princess		<input type="checkbox"/>
CP	Great job! The game is pretty much done, we only need to let the player know when he wins!		

Step	Challenge - Let the player know he wins	Hints	Done
1	<p>Still on the princess sprite: In order to see if the user won, we need to detect if the princess is below the street. To implement this, all we need to do is detect if the princess Y position is < -150</p> <ul style="list-style-type: none"> You can have multiple <i>When flag clicked</i> event in your code but you can also put them in the same script. I decided to put them in a new script for this example. 		<input type="checkbox"/>
CP	AWESOME! YOU ROCK!		

... but can you complete the last challenge?

Ultimate Challenge

<p>Make sure that if the princess hit the bus or the car, the user loses. We always need to protect the princesses!</p>	<input type="checkbox"/>
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