

Week_20

Trinity Coding4Kids

02/12/2024

We will begin our class with a short: Review

Touch Typing

We want to build on our knowledge and skill.

First lets understand the word 'posture'.

Posture is the position of your body, arms, wrist, hand, and finger

Posture & technique

Sit with your back straight and your feet flat on the floor. You should have your arms next to your body in a comfortable position. Make sure the F and J keys of the keyboard are immediately opposite the middle of your body. When typing, keep your elbows close to your body, wrists and forearms at a level. After striking each key return your fingers to their *resting* position on the **home row**.



Proper Keyboarding Technique



- Sit u
- Feet flat on
- Body
- on the Letter
- Elbows be
- Fingers c

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Students, when you are practicing at home; Ask your parent about your proper posture for typing. We want you to develop good habits right from the start. This will help you as you learn and grow in your skill. Also this will help you in years to come.

Home Row

Once you put your fingers on the [F] and [J] keys; your other fingers should curve to go on the other keys.

Next we will take a simple typing test...

Week



Week_20_Beginner_TouchTyping_Test ●



Students will practice with the home row keys.

Row Keys

Spacebar

monitor

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Test active

Feb 12, 2024 - Feb 29, 2024

Then:



Week_20_Intermediate_TypingTest ●



Students will warm up with the home row, then practice with a bible verse from God's word.

Test active

Feb 12, 2024 - Feb 29, 2024

Our Coding exercise will be

www.code.org/learn



Create a 3D T-Rex Game
Grades 2+ | Blocks

The image shows a 3D game environment with a blue T-Rex character standing on a sandy ground. There are green cacti and a blue sky in the background. The logo "hatch KIDS" is visible in the top left corner.



Create a 3D T-Rex Game

HatchXR

Grades 2+ | Blocks

Build the classic chrome's T-rex dino game in 3D, while learning about the basic of game development, motion in 3D space and learn fundamental programming concepts like loops, conditionals, variables, and

keyboard events, all in less than an hour. Don't forget to share your creations with us using #hatchxr #HourOfCode

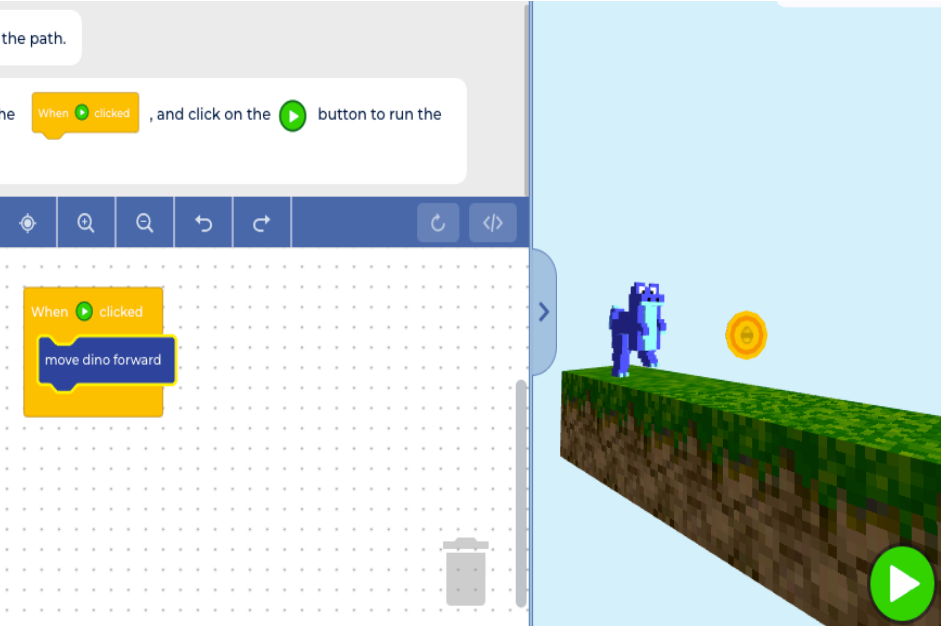
Start

▶ Make the dino reach the coin by walking the path.

▶ Place the `move dino forward` block inside the `When clicked`, and click on the `▶` button to run the code.

CODE BLOCKS

- `move dino forward`
- `play tetris theme in background`




The image shows a Scratch code editor interface. On the left, the 'CODE BLOCKS' panel contains two blocks: 'move dino forward' and 'play tetris theme in background'. The main workspace shows a 'When clicked' event block with a 'move dino forward' block nested inside it. To the right, a 3D game preview window shows a blue dino on a green path with a yellow coin ahead of it. A green play button is visible in the bottom right corner of the preview window.

▶ Repeat blocks are used to perform a set of activity again and again.

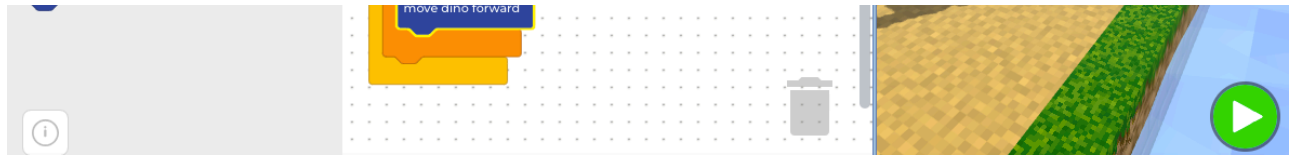
▶ Use the `forever` to make the Dino continuously `move dino forward` while you play the game

CODE BLOCKS

- `forever`
- `move dino forward`



The image shows a Scratch code editor interface. On the left, the 'CODE BLOCKS' panel contains two blocks: 'forever' and 'move dino forward'. The main workspace shows a 'When clicked' event block with a 'play tetris theme in background' block and a 'forever' loop block containing a 'move dino forward' block nested inside it. To the right, a 3D game preview window shows a blue dino on a path with several brown coins ahead of it.



INSTRUCTIONS [Watch Guide Video for this Step](#) [Previous Slide](#) [Next Slide](#)

- ▶ Create a list of obstacles that you want to add in dino's path
- ▶ Place the **cactus 1** & **cactus 2** blocks inside the **set obstacle to**

CODE BLOCKS

- randomly create obstacles at every 7 meters
- set obstacle to **Cactus2**
- When game is running
 - randomly create obstacles at every 7 meters
- When **click** clicked
 - play **tetris theme** in background
 - forever
 - move dino forward

Game preview window shows a blue dinosaur on a path with cacti and coins. Controls include a volume slider, a 'NEXT STEP' button, and a 'JUMP' button.

▶ Variables can help you store values in them. Click on **Create variable...** button and create a variable named "score"

▶ Place the **set score to 0** inside the **When clicked** and set the score value to 0.

CODE BLOCKS

- Create variable...**
- set x to 0**
- change x by 1**
- When **click** clicked
 - set **x** to 0
 - play **tetris theme** in background
 - forever
 - move dino forward
- When dino collides with **coins**
 - play music **Coin collect**
 - change **x** by 1
- When dino collides with **obstacle**
 - play music **Game over**

Game preview window shows a blue dinosaur on a path with a 'NEXT STEP' button.

- ▶ Congratulations! You created your very own dino game.
- ▶ The open dino world awaits you. Add your own dino, and obstacles, and build the game you want. It's up to you.

CODE BLOCKS

- Cactus1
- set sky color
- set ground color
- set ocean color
- color

When clicked

set obstacle to Cactus1

forever

- move dino forward

When game is running

When space key pressed

When dino collides with obstacle

