

Getting started with Unreal Editor for Fortnite (UEFN)

Design a 3D world



Introduction to Flip Computing

- Technology education (TechEd) company
- Inclusion-first approach
- Create bespoke learning experiences for technology education providers
- Driven by a need to flip the narrative on computing and provide unique opportunities to access the subject





What is Unreal Editor for Fortnite (UEFN)?

collect_device.verse x

My3DWorldExample1 > collect_device.verse > collect_device > OnBegin

```

9 collect_device := class(creative_device):
15     @editable
16     BaseCollectable:creative_prop = creative_prop{}
17
18     # The copy of the collectable to be found
19     @editable
20     Collectable:creative_prop = creative_prop{}
21
22     # Press to collect the collectable
23     @editable
24     CollectButton:button_device = button_device{}
25
26     # Runs when the device is started in a running game
27     OnBegin<override>()<suspends>:void=
28
29         # Hide the collectable at the base
30         BaseCollectable.Hide()
31         Print("Collectable hidden")
32
33         # Listen for a button press to collect the collectable
34         CollectButton.InteractedWithEvent.Subscribe(Collect)
35
36         # Collect the collectable item
37         Collect(Agent: agent):void=
38             CollectButton.Disable() # Only collect once
39             Collectable.Dispose() # Not needed now
40             BaseCollectable.Show() # Collectable appears at base
41             set GoalManager.Collecte... = GoalManager.Collecte... + 1 # Increase number of collected items
42             Print("Object collected.") # Confirm collected to player

```

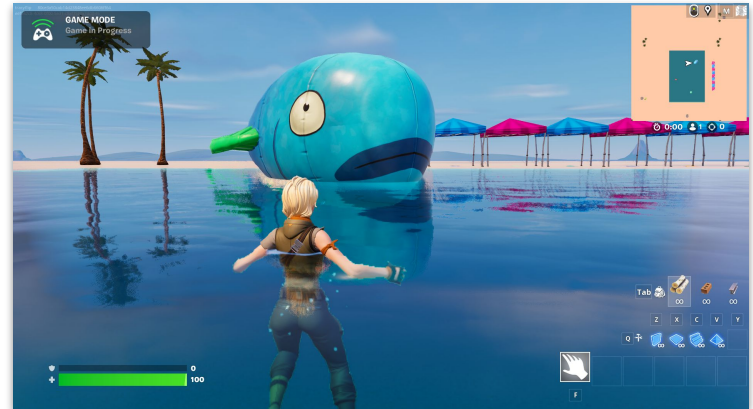
What is Verse? A new programming language from Epic Games

UEFN ENRICHMENT!



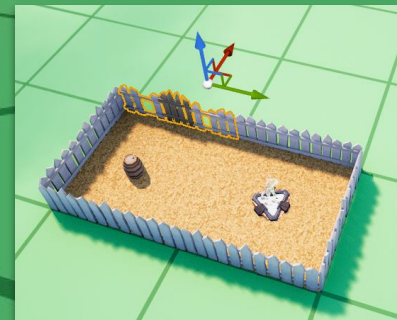
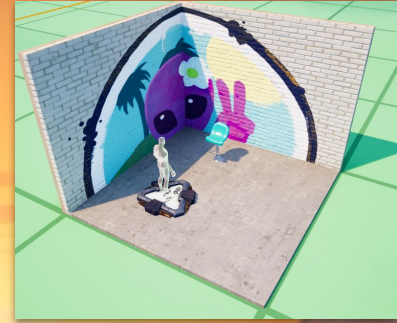
4 Sessions

1. Build your world
2. Code your world
3. Personalise your world
4. Share your world



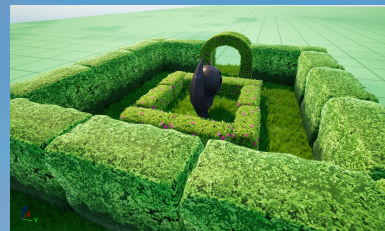
What will you make in session one?

A personalised 3D world with a chair to sit on and enjoy the view.



What will you make in session two?

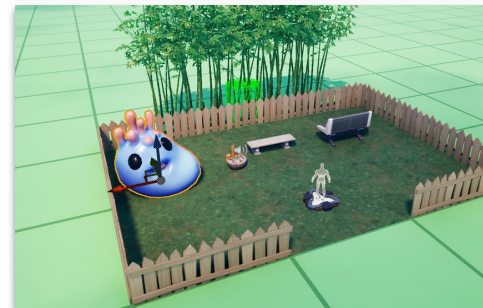
A world where you collect an object for your base and receive a visual effects reward



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100



(Where we left you last time) After the first two sessions ...



(What we've added since) After the four sessions ...



Session three: Personalise your world

- Make **design decisions** about which features to add:
 - Use Verse code to send messages to a **'heads up display'**
 - Use Verse code to control how **objects move** back to the base
 - Replace the **material on multiple items** to change your island surface
 - Add **props** to create scenery for your world



Session four: Share your world

- **Share a UEFN project**
 - At your computer
 - Via a zipped file
 - On Fortnite
- **Play a project created by someone else**
- **Celebrate your achievement!**

flip

Testing and giving feedback

Can you play the game and trigger the reward VFX effect?

1. Try it out!

- Play the game and see if you can trigger the reward. Remember, there might be more than one item to collect and they may be hidden.

I sat on a chair

I found a collectable

I triggered the reward

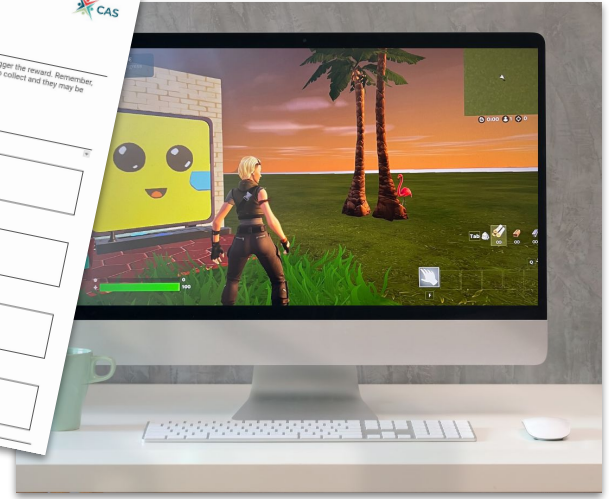
2. Give Feedback:

Something I loved:

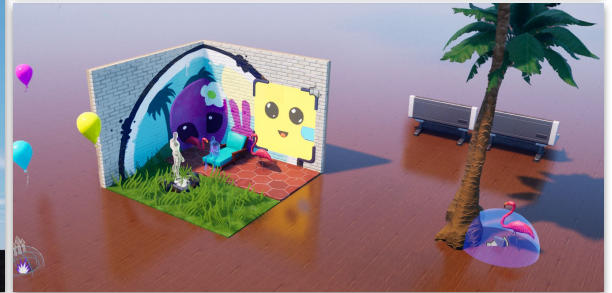
Something that was different from my project:

Something that could be improved:

Describe the project in three words:



Carefully selected skills - huge variety of results



Resources for each session

- Getting started guide
- Lesson plan
- Teacher guide
- Classroom slides
- UEFN Controls list
- Vocabulary sheet
- Student worksheet



Using the resources

- Clickable content navigation
- Recognisable common features
- Highlighting for new code
- Use of full width of page
- Code formatting
- Numbered steps
- Testing checklists

←

- Outline
- UEFN Enrichment
- Session One
- Build your world
 - Contents
 - Get started
 - Customise your island

🤖 I deleted something by accident!

- Click **Ctrl+Z** to undo...
 - If you delete a grid square you didn't mean to
 - If you see the error message "Your scene contains a skydome mesh with a sky material but it does not cover that part of the screen"

2. Add a variable for a chair device

- Under the '`goal_device`' code, add a new variable

```
# Keeps track of whether the player has achieved the goal
goal_device := class(creative_device):

    @editable
    Chair:chair_device = chair_device{}

# Runs when the device is started in a running game
OnBegin<override>()<suspends>:void=
    Print("Hello, 3D world! 🌱", ?Duration:=30.0, ?Color:=NamedColors.Gold)
```

13. Try it out! ▶

- Confirm that the object is missing from your base at the start
- Walk to the collectable copy and use **E** to collect it
- Return to your base and check that the object has appeared



Real world application of skills

- 3D games
 - Brand experiences
 - Entertainment
 - Architecture and design
 - Education
 - Science and engineering simulations
 - Video effects for movies
 - Fashion and retail experiences
- Over 18s can make money through the Fortnite Creator Economy 2.0
 - Epic Games are making Fortnite Game modes using UEFN



Discussion

Over to you

What 3D tools do you use in your setting at the moment?



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