

ADVENTURON CLASSROOM

UK National Curriculum Key Stage 2 / 3 Information



Information

Adventuron Classroom is a fun and **creative** coding activity set for supervised 9-12 year olds, that can be used to support a number of National National Curriculum Key Stage 2 + 3 goals.

Adventuron Classroom makes coding and creativity fun with a smart-tutorial-system. This system keeps track of progress, and gates off content that may be intimidating whilst taking baby steps. The course content itself is designed to help an absolute beginner with more general concepts such as **Keyboard Use**, **Source Code** as well as more specific skills such as how to code a complete traditional text adventure game, from beginning to end.

Text adventure creation, with or without Classroom, is a useful enabling technology to help develop / stimulate a range of skills such as **English Literacy**, **Code Literacy**, **Logical Thinking**, **Collaboration**, and **Empathy**.

Adventuron Classroom is Chromebook friendly, (Desktop) browser-based, with no login is required.

** TALP - Text Adventure Literacy Project.*

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Adventuron Classroom can help achieve National Curriculum targets in a variety of ways.

Computing (Key Stage 2)

“Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts” [1]

With Adventuron Classroom, the game world is inhabited by objects and act upon the player and are acted upon by the player. The student must code the behaviour of these objects in the world in order for the fantasy world to come to life. Adventuron is different to other educational systems in that the motivating factor is a child’s own imagination.

“Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.” [2]

Adventuron Classroom’s lesson plan demonstrates the use of variables (booleans), how to process input (using `on_command{}` blocks of code) and how to affect the output on screen (using `:print`, `:beep`, and `:print_graphic` commands).

“Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs” [3]

Adventuron Classroom’s lesson plan demonstrates bad logic then explains why the logic is does not work, then show the resolution to an algorithm. An example of this is demonstrating that coding an “examine” message seems to work, but then demonstrating that it the criteria used for showing the message is too broad and that it must be constrained with additional logic.

[1]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

[2]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

[3]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

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Adventuron Classroom can help achieve National Curriculum Key Stage 3 targets in a variety of ways.

Computing (Key Stage 3)

“use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions” [4]

Adventuron Classroom’s coding language, Rion, is a text based language, and its lesson plan demonstrates use of procedures.

“understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming” [4]

Adventuron Classroom’s lesson plan demonstrates the use of AND and OR boolean logic. OR is demonstrated in match {} blocks, and AND is demonstrated in the use of conditions that appear in front of actions.

“understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits” [4]

Adventuron Classroom’s lesson plan demonstrates how graphic images can be represented in base64 format, and the difference between the JPEG and PNG image representation formats. A discussion of base64 is included in the appendices.

“undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users” [4]

Adventuron Classroom’s lesson plan has a whole chapter and discusses game design heavily. After the initial lesson plan is complete, there are a boundless number of creative projects possible in Adventuron, and the whole project is based around collaborating as teams. If a student shares their game with friends, they can gather feedback and improve their design.

[4]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239067/SECONDARY_national_curriculum_-_Computing.pdf

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English (Key Stage 2 + 3)

Adventuron Classroom teaches how to deliver an interactive story to the “player”. Post coursework, it is intrinsically a creative task and encourages both reading and writing.

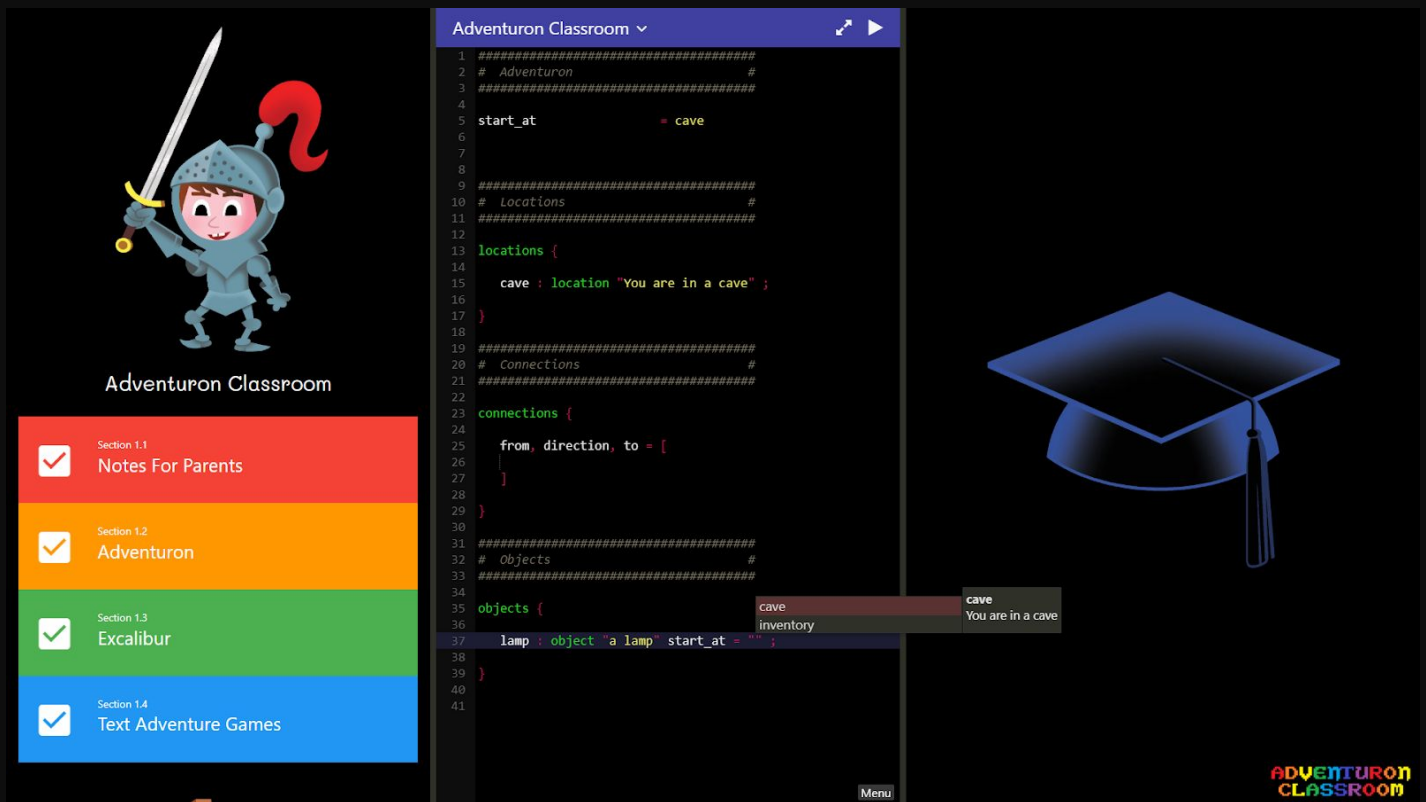
Creative writing is so applicable to key stage 2 and 3 goals that there is too many areas where it is useful to list them here.

When designing a game, the author must empathise with the player, guide them, deliver plot elements to them as well as deliver satisfying “clues”.

Whilst the course itself is not creative, in that there is a fixed lesson plan to follow, after the course is complete, the student has all the tools available to build their own interactive stories.

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Main Workspace Image - Left Panel: Tutorial ,Middle Panel : Code Editor ,Right Panel : Game Preview



The screenshot displays the 'Adventuron Classroom' workspace, divided into three main panels:

- Left Panel (Tutorial):** Features a character illustration and a sidebar with four sections, each with a checkmark:
 - Section 1.1: Notes For Parents
 - Section 1.2: Adventuron
 - Section 1.3: Excalibur
 - Section 1.4: Text Adventure Games
- Middle Panel (Code Editor):** Titled 'Adventuron Classroom', it shows a code editor with the following content:

```
1 #####
2 # Adventuron #
3 #####
4
5 start_at = cave
6
7
8
9 #####
10 # Locations #
11 #####
12
13 locations {
14
15     cave : location "You are in a cave" ;
16 }
17
18
19 #####
20 # Connections #
21 #####
22
23 connections {
24
25     from, direction, to = [
26     ]
27 }
28
29 }
30
31 #####
32 # Objects #
33 #####
34
35 objects {
36
37     lamp : object "a lamp" start_at = "" ;
38
39 }
40
41
```
- Right Panel (Game Preview):** Shows a blue graduation cap icon. A tooltip is visible over the code editor, displaying:

```
cave
inventory
cave
You are in a cave
```

(1)

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Main Workspace Image - Left Panel: Tutorial ,Middle Panel : Code Editor ,Right Panel : Game Preview

Joining Locations Together

Connection Our 3 Locations Together

Referring to our map, the hut has an exit north to road_1, and road_1 has an exit north to road_2. We can put this in a table to make it nice and clear.

We connect locations together using the connections table.

From Location	Direction	To Location
Hut	North	Road 1
Road 1	North	Road 2

Adventuron Classroom

```
1 #####
2 # Adventuron
3 #####
4
5 start_at = hut
6
7 #####
8 # Locations
9 #####
10
11 locations {
12
13   hut : location "You are in a ramshackled hut. Golden sunlight
14     filters through an open doorway to the north." ;
15   road_1 : location "You are standing on a grass bordered track. A hut
16     lies to the south." ;
17   road_2 : location "You are where the road twists eastwards. Small hills
18     around the road are crowded with vibrant red Hawthornes." ;
19 }
20 #####
21 # Connections
22 #####
23 connections {
24
25   from, direction, to = [
26
27   ]
28 }
29
30 #####
31 # Objects
32 #####
33
34 objects []
35
36
37
```

You are in a ramshackled hut. Golden sunlight filters through an open doorway to the north.

>

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(2)

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Intelligent Editor

Adventuron Classroom features an intelligent editor that provides beginners with context sensitive help so that they will not be stuck looking for the right word to use in any situation.

Use of this feature, so that beginners can utilize it fully, is fully covered in the integrated course / tutorial.

(1) Suggested navigation directions when connecting locations together.

```
#####
# Objects #
#####

objects {
  ladder : object "a ladder"
}

#####
# Connections #
#####

connections {
  from, direction
  hut, east
  hut, west
  hut, north
  hut, south
  hut, up
  hut, down
  hut, enter
  hut, leave
  hut, southeast
  hut, northeast
}

#####
```

(2) Asking for options on the ladder object.

```
#####
# Objects #
#####

objects {
  ladder : object "a ladder"
}

#####
Press Control + Space Here
```

(3) Being presented with options on the ladder object.

```
#####
# Objects #
#####

objects {
  ladder : object "a ladder"
}

#####
start_at
treasure
initially_worn
wearable
```

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License

Adventuron Classroom is licensed for personal non-commercial use.

Free 12 month school licenses available upon request.

Currently seeking school pilot-scheme partners, perpetual licenses available.

More information is available via the link below.

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The Text Adventure Literacy Project (TALP)

Text adventure literacy is very low, with a majority of the population under the age of 30 not knowing the genre ever existed let alone knowing standard commands.

To help rebuild text adventure literacy, Adventuron Classroom has been released alongside a fully authorized port of the classic game, "[Excalibur: Sword of Kings](#)". Excalibur is the first game in the TALP series of games.

This adventure game, originally written by Ian Smith & Shaun McClure, from 1987, has been re-written, and now includes an in-built training mode - to teach players with zero text adventure experience, the design language and flow of the genre.

It is anticipated there will be more TALP games, and that TALP will be used as a common search term, independent of Adventuron, to signify a text adventure game that makes no assumptions that the player is familiar with the genre at all and makes every effort to introduce these concepts to the player.

Final Words

I feel passionately that text adventure creation is a fun activity that holds huge potential to excite and engage young minds - building confidence, and setting free creativity. From logicians, to artists, to musicians, to storytellers, everyone has something to contribute in a collaborative text adventure authoring project.

What is old is new again. Look past the aesthetics, and you are left with a medium where it is deliciously easy to go from imagination to constructed reality. The adventures of the next generation are out there, ready to be travel from mind to keyboard. Lowering the very first step is the way.

Chris Ainsley / Adventuron Software Limited.

Links

Adventuron Website : <https://adventuron.io>

Adventuron Games

The Beast of Torrack Moor (30th Anniversary): <https://adventuron.itch.io/thebeast>
Excalibur: Sword of Kings (TALP) : <https://adventuron.itch.io/excalibur>
The Path : <https://adventuron.itch.io/thepath>
Hamurabi: <https://adventuron.itch.io/hamurabi>

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