# MissionMaker Training Session – 2 ½-3 hours

A whistle-stop introduction to be followed by some practical experience!

Steps	Actions	ICT Learning*
1 Navigation	<ul> <li>look around (right mouse button)</li> <li>move using arrows</li> <li>move using scroll button</li> <li>jump (space bar) &amp; crouch (control key)</li> <li>Analyse/discuss existing game played to practise controls and identify game criteria/what could be improved.</li> </ul>	<ul> <li>4.1 Evaluating work Year 7</li> <li>agree and use criteria, and understand how to improve their work</li> <li>Year 8</li> <li>make and use simple success criteria that ensure fitness for purpose</li> </ul>
2 Game World	Explore narrative contexts underpinning games Using camera as means to capture working (importing into Kar2ouche to add sound or saving as RTF as appropriate)	<ul> <li>3.2 Refining &amp; presenting information and</li> <li>3.3 Communicating</li> <li>Year 7</li> <li>combine text, images, tables and sounds from a number of sources to convey meaning</li> <li>import and ex[port data in appropriate formats</li> <li>capture, store and exchange information digitally by a variety of means</li> <li>Year 8</li> <li>modify and develop text, images, tables and sounds from several sources within the structure of a piece of work</li> <li>use digital communications for the sharing and collaborative development of ideas for a variety of purposes</li> </ul>
3 Rules If THIS then	<ul> <li>Adding doors</li> <li>Adding pickups (descriptions/clues and values – considering how these will be used in game play with rules) Introducing and testing rules:</li> <li>object clicked</li> <li>global trigger</li> <li>spatial trigger (two-part rule – need for trigger and pick-up or object to enter trigger before adding rule)</li> <li>state trigger (two-part rule – need something with more than one state to implement rule)</li> </ul>	<ul> <li>2.3 Sequencing instructions (and 2.2 Models and modelling) Year 7</li> <li>rationalise a set of instructions by repeating sections</li> <li>plan and implement sets of instructions, predicting outcomes before execution</li> <li>Year 8</li> <li>use precision and accurate syntax when framing instructions</li> <li>test and refine sequences in order to achieve specific outcomes</li> <li>Year 9</li> <li>use efficient structuring of instructions and recognise how this increases flexibility and eases testing</li> <li>break down a problem into manageable sections that can be represented by sub-procedures where appropriate</li> <li>review own and others' sequences of instructions to improve efficiency</li> </ul>
4 Characters	Adding and controlling characters Planning, creating and allocating speech	<ul> <li>2.2 Models and modelling (and 2.3 Sequencing instructions)</li> <li>Year 7 <ul> <li>explain how rules govern a model</li> <li>Year 8</li> <li>amend existing simple models by changing variables and formulae</li> </ul> </li> <li>Year 9 <ul> <li>extend existing more complex models and create their own from a give design, reviewing efficiency</li> </ul> </li> </ul>

\* Learning – just some of the criteria that apply to the tasks. *The Focus on Games* TSP developed with Bedfordshire LA for KS3 looks in more detail at how each of the new criteria relate to a ten week/lesson project. This is downloadable from the website along with the games referred to in the pack. <u>http://www.immersiveeducation.com/downloads/missionmaker/tsp/</u>

ICT is just one of the 'curriculum areas' where MissionMaker can make a contribution to relevant learning. Other areas include English, D and T, Citizenship and PSHE. Other TSPs, a game player and games can be found at: www.immersiveeducation.com/downloads/missionmaker

# 1. What Can it Do and How Do I Do It? Navigation (1 hour)

Working through the buttons! Getting to grips with the functionality before thinking about how the software can be used to maximise learning benefits!

# **Navigation**

Playing the game ...



#### Using your mouse:

**Scroll Button:** Depress and move mouse to move forward, left and right.

**Left Button:** Use this to select and grab things to put into your inventory.



**Right Button:** Depress and hold down button whilst gently moving mouse to look around whilst standing still.

Use the arrow keys to move forward (up); backward (down) left (left) and right (right).



The control key allows you to crouch.

The space bar allows you to jump.

PLAY YOUR SELECTED GAME TO GET THE HANG OF MOVING AROUND & TO EXPLORE SOME OF THE GAME'S FEATURES. To come out of the game press the Escape button.

# Making a New Game World (1/2 hour)

load New Game load New Game save export

Come out of the game and return to the  $\ensuremath{\textbf{MAIN}}$  screen.

Select **new** and then **edit**.



You will make a game by combining a number of building blocks. Each has its own **Properties** (what the player sees going into the game). **Actions** (what the game author allows the player to make happen) and **Associations** – a list of the other game elements associated with the one selected.

## Location

All games begin with the location; this will provide the *narrative context* for the gameplay that ensues. You can select from and combine a range of tiles of varying sizes with 1 to 4 doorways/openings.

Baronial (8 tiles)	Industrial/Mining (9 tiles)	Urban (6 tiles)	Drains (5 tiles)
Medieval castle with	Series of industrial rooms	City square and alleyways	Slimy pipes.
dungeon, rooms and draw	and rocky tunnels.	<ul> <li>dark and decaying.</li> </ul>	
bridge.			
Egyptian Tomb (12 tiles)	Mini-world (9 tiles)	Plain Room (7 tiles)	Holiday Resort (6 tiles)
Series of dark rooms with	Under the floorboards or	Futuristic white rooms	Rooms and squares with a
stone walls	in the garden under leaves		distinctly Mediterranean
			feel.
Sci-fi (13 tiles)	Stone Age Landscape (4 tiles)	Victorian (9 tiles)	Wild West (8 tiles)
Space-craft or station	Rocky landscape with	three storey, library, rooms	Jail, shack, saloon and
corridors and rooms.	caves and lake.	and corridors	street.



To select a tile, left click and drag onto the blank grid. To rotate a tile by 90° left click. When you have arranged all your tiles on the grid, with the thick red openings matching, click on the **'When you have finished arranging your tiles, click here to build the world'** box.

## Prop

Having established the game-play space, you can add props to furnish and embellish the locations. Grab the prop you want and drag it into the space. Occasionally, if the prop is large, you will see a red no-entry symbol. Just drop the prop and move away from it in order to locate it more precisely.

To locate an item more precisely, or to hang it on a wall, you can use the yellow arrow and dot. The arrow raises the



object (click on it and drag it upward); the dot moves it (click and drag into position).

	Crate	3	
PROPERTI	ES	ACTIONS	ASSOCIATIONS
	Active	True	
	Scale	1.0	
Highl	ighted	False	

You can also change the **properties** of the prop. **Active**: True means that the object is visible and can be used in the world. Click on this line to change Active to False and then it will be invisible. If it appears with some action later it can be useful in the game-play.

If the object is too big or small, you can change its size by changing the Scale, just overtype the 1.0.

# **Active Prop**

Che	tive prop est of Drawers	
PROPERTIES	ACTIONS	ASSOCIATIONS
Active	True	
State	Closed	
Animation Speed	1.0	
Scale	1.0	
Highlighted	False	

Active props are those which have more than one state: on/off, up/down, open/closed etc. They act like props but have additional functionality. Where an action is possible, you can alter both the **state** and **animation speed**.

At the end of the selector bar, you will find a range of **editable active props**: TVs, notice boards, consoles and signs. You can import images, text and films to these props.

a a	oti	ive prop	
CI	nes	t of Drawers	
V			
PROPERTIES		ACTIONS	ASSOCIATIONS
Emit Sour	nd		
Оре	en		
Clos	e		
Toggle stat	te		
Set Activ	/e		
Set Inactiv	/e		
Toggle Activ	/e		

In order to allow the player to interact with the active prop, you need to set an **action** and **trigger**.

Click on the **actions** tab and then on the action you wish the player to be able to perform. An orange arrow will appear at the end of the line; click on this.

This will open the Trigger editor. Select the trigger you want to use by clicking on the orange arrow. Then follow

the instructions. The rule will appear in the rule editor. Read the rule. When you are happy, accept it by clicking the tick.

Trigger T	/pe	
Type 1	Spatial Trigger	
Type 2	Object Clicked	
Туре 3	State Trigger	
Type 4	Global Trigger	
Type 5	Speech Trigger	
Type 6	Shot by Player	
		<u>&gt;</u>

	>	
RULE EDITOR Rule 1	Delay R	).O X 🗸
Activator	Trigger: Type 2 Clicked	Action
If Chest of Drawers	is clicked	Chest of Drawers changes state to Open

# **Special Effect**

Special effects, smoke, fire etc, can be added just like props and made inactive until something else triggers their

	>	
RULE EDITOR Rule 2	Delay R 0	.o 🗙 🔨
Activator	Trigger: Type 3 State	Action 斗
If Chest of Drawers's state	becomes "Open"	Smoke is activated

appearance. For example, 'if Chest of drawers state becomes open, Smoke is activated.'

To delete, click on the bin.



# Making Things Happen With Triggers Rules (1 hour) There are six types of trigger requiring one or more steps to create the rule.

Type 1	Spatial Trigger	
Type 2	Object Clicked	
Туре З	State Trigger	
Type 4	Global Trigger	
Type 5	Speech Trigger	
Type 6	Shot by Player	

Spatial Trigger		This requires a number of steps and
		you need to plan ahead.
		1. Decide on the action you want to
		perform.
		2 Add a <b>trigger volume</b> in an appropriate
	TTELEPITER PROPERTY AND	nlace
	Activator	3 Select the action and snatial trigger
	Cylinder Trigger Anything	A Select the <b>trigger volume</b> (this can be a
	Any pickup Accumulated weight	
	Accumulated value Any character	5 Select in the rule editor whether it is
	Specific Character Specific Object	something exiting or entering the snace
		that triggers the action
	Activator Trigger: Type 1 Spatial Action	6 Select the activator
		7 Accept or cancel the rule
Object Clicked	is inside Cylinder Triager Clock bok plays EDITOR I	This is the simplest trigger
Object Clicked	RULE EDITOR Rule 1 Delay R 0.0 X	Inis is the simplest trigger.
	Activator Trigger: Type 2 Clicked Action	1. Select action.
		2. Select object clicked.
	B Oberheit Demuer	3. Select object that when clicked will
	il Criest di Drawers changes sale il Ope	"-"trigger the action.
		4. Check the rule and accept.
State Trigger		1. Select action.
	Select State Active	2. Select state trigger.
	linadve Closed Oper	3. You will be asked to select an object
		with more than one state; click on it to
		select it.
		4. Select state.
	RULE EDITOR Mole 2 Delay # 00 X A	5. Check rule and, if appropriate, accept
		it.
Global Trigger		1. Select action.
		2. Select global trigger.
	Activator	3. Select <b>activator</b> and, if appropriate, set
	Time exceeded	the value.
	Player health zero	4. Check rule and, if appropriate, accept
	Start of Game	it.
Speech Trigger		1. Decide on the action you want to
	MY GAME NEW	perform.
		2. Add a <b>speech</b> through the <b>media</b>
		menu.
		3. Select the action and speech trigger.
		4. Select the <b>speech</b> from the <b>My Game</b>
	MEDIA Media (4)	menu.
	RECENT 1 Default Dawn Over Screen Trigger Type	5. Select the <b>speaker</b> .
	2. Instructions pop up Select a piece of	6. Accept or cancel the rule.
	I. Speech 1     Yelds under word you like to do?*     Thin you do you find to do?*     Thin you do you find to do?*     Thin you do you find to do?*	
	RULE EDITOR Rule 4 Delay R D0	
	Trigger Type 5: Speech Action	
	Courtis actualed EDITOR MAIN	
Shot by Player	Activator	1. Select action.
		2. Select <b>shot by player</b> .
		3. You will be asked to select an object to
		shoot that will activate the rule.
	select an object	4. Check rule and, if appropriate, accept
		it.

## Door

You can divide tiles by adding doors that the player needs to open in order to proceed. There are eight doors to choose from. The following instructions show how you might open a door using each of the trigger types.

To add a door, left click and drag into place. Make sure that you are located close to where the door is to be located. The door will be inserted into the closest gap.



Speech	EDITOR Rule 8	Delay R 2.0	X	1. Add <b>door</b> .
Trigger	ivator	Trigger Type 5: Speech	Action	2. Create <b>speech</b> and rule that will
		$\overline{\mathbf{y}}$		allow it to be spoken by a character or the player. 2. Select the <b>door</b> and click on the
	If Female Explorer	says Open sesame in conversation	Sci-li door 2 opens	actions tab in the editor.
				3. Choose <b>open</b> and select <b>speech</b>
				trigger.
				4. Select the <b>speech</b> , from the <b>My</b>
				Game menu and indicate who it will
				be spoken by.
				5. Check rule and, when happy,
	- L I			accept.
Shot by Player			7	1. Add <b>door</b> . Click on the <b>actions</b>
				tab in the editor.
	11: Rule 9 🖓 🏹			4. Choose <b>open</b> and select <b>shot by</b>
	"If Victorian Doc	r is shot by player,		player.
	Victorian Door o	nens"		5. When asked to <b>select an object</b>
	rational bool of	/////	_	click on the door you just added.
				7. Check rule and, when happy,
				accept.

Go into the game to check your rules by clicking on the left pointing arrow above the rule editor. To come back to the authoring environment press the **Esc** key on your keyboard. To begin the game near where you want to test a rule, click on the **start player here** button (feet).



# Pickup

Pickups can be added to the game, to be used by the player for a whole range of reasons.

pic	kup	
1 Un	it weight	
PROPERTIES	ACTIONS ASSOCIATIONS	
Active	True	
Description	1 Unit Weight	
State	In World	
Weight	10	
Resistance	10	
Value	10	
Health Value	0	
Nutritional Value	0	
Uses	1 🛹	
Time Bonus	0	
Points	0	
On pickup	Add to Inventory	
Enable Compass	False	
Enable Map	False	
Scale	1.0	
Highlighted	False	
EDITOF	r Main	

Pickups can appear at a point when they might be needed. Set them **inactive** in **properties** at the start and then in **actions** make them **active** at a certain point. For example, a health kit with health points might appear when the Players health reaches a certain point.

**Weight** can be used to limit what a player can put into his or her inventory. The **inventory weight limit** can be set in the **Player Attributes** found in the **My Game** menu.

The **Resistance** level controls how easy it is to destroy the pickup (using the gun or wand).

The **Health** and **Nutritional Values** add to the economies to the right of the inventory and can be used to trigger other actions.

The initial economies can be set in the **Player Attributes** found in the **My Game** menu.



To gain the points or values awarded to a pickup the Player has to use the item in their inventory. The number of **uses** can be set in the **Pickup Editor**.

Pickups can also be used to give a Player more or less time, to award points which add to a score or to enable the

**map** and/or **compass**. Pickups can be placed in the inventory directly to be found by the player at the start of the game or they can be added to the game space to be collected by the player as the game progresses.

**Pickups** have fewer **actions** than properties but can be used to emit a sound, disappear or appear for use in the game and can be teleported to a particular location or character.

pickup Amulet				
PROPERTIES	ACTION	IS A	SSOCIATIO	DNS
Emit Soun	E			
Set Activ	Э			
Set Inactiv	Э			
Toggle Activ	э			
Teleport T	)			

### **Trigger Volume**



Trigger volumes are used to activate spatial triggers but can be tricky to locate. Use the yellow arrow and dot, much as you would with a prop. It is easier to move a **trigger volume** when it is small.

When the **trigger volume** is located in the right position you can make it bigger or smaller by dragging the top (scale height), bottom or side edges (scale radius).

Manipulating trigger volumes gets easier with practice. If the volume gets out of control, don't struggle, delete, by clicking on the bin, and start again.



# Adding Media

The **Media** button allows you to add audio, pop ups, speech and video.



# Pop Up

Pop ups are used to give instructions or information.

#### Properties

First select a background image for the pop up. This can be one of the images from the selector bar at the top or an image you import (tga, bmp or jpg). To select your own image, click on the **filename** line, navigate to the image and click **open**.

Choose whether you want the pop up to **Display As** full screen or pop up.

Write your text in the **Overlay Text** line.

Next considering the predominant colour of the background, select the **Overlay Colour**, **Text Alignment**, **Subtitle Font** and **Size**.

	MEDIA		MEDIA
	AUDIO		LE
Ī	POP UP		~
	SPEECH	r 1	
1	VIDEO	NS	ASSOCIATIONS
1			

# Audio

You can add sound from the selector bar at the top of the screen or import your own audio files.

Click on the sound to hear it. Replace Audio 1 in the audio editor with a more memorable name. This makes subsequent amendments easier.

Click on the **actions** and **play**. Set the trigger for the audio. For example, a state trigger would allow you to add a sound when a door opens.

To import your own mp3 file click on the **Filename** line and navigate to the sounds on your computer. **Open** and it will be added to the media in your **My Game** menu.

You can also record sound by clicking the **record button** (microphone icon). Click the square **stop button** when you have finished.



**Click Dismiss** allows the player to click on the pop up to close it when he or she has finished reading. **Duration**, allows you to set the number of seconds the pop up stays on the screen before closing automatically. Change the title from **Popup 1** to a name that will help you identify it more easily later.

Instr	ructions	
PROPERTIES	ACTIONS	ASSOCIATIONS
Play On		
Play		
Stop		

#### Actions

If you have an editable, **active prop** in your game a pop up can play on this. Click the **Play On** line and you will be asked to select the appropriate prop. If the pop up is just to play on the screen, click **Play**. You can set the triggers and rules as before.

Adding Video is very like a pop up. Select **video**. In **Properties** decide

whether you want the video to **loop**. In **Actions** select **Play** (or **Play on** and an editable prop from the dropdown menu). Set the trigger.

# **Characters and Speech**

### **Using Characters**

Female Explorer			
PROPERTIES	ACTIONS	ASSOCIATIONS	
Active	True		
Walk Style	Default		
Head	FemExplorer		
Torso Object	FemExplorer		
Legs Object	FemExplorer		
Resistance	50		
Scale	1.0		
Highlighted	False		

The characters can be added much like other objects, they can also be personalised in the **properties editor**. The game author can change the name, how the character walks, mix the heads, bodies and legs of the characters and alter their size. The **resistance** indicates how difficult they are to destroy using the gun or wand.

The list of potential **actions** is longer. Most of the actions are relatively self-explanatory and can be triggered in the usual way. For a character to speak, speech needs to be added first through the media tab in the **New** menu . It then appears in the drop down menu that appears when you select **Say**. **Seek and Destroy** means that the character will keep shooting the selected object, other character or the Player until they are destroyed or disabled. **Turn and Shoot** results in only one shot.

**Go To** allows a character to be used to lead a player to a specific object or location. **Stop** is useful if the character needs to act as a guard or give information about a particular place or thing. The characters wander if not given particular directions.

Fem:	ale Explorer		
PROPERTIES	ACTIONS	ASSOCIATION	s
Emit Sound			
Say			
Watch		~	
Stop Watching			
Draw Gun			
Replace Gun			
Seek And Destroy			
Turn and Shoot			
Go To			
Follow			
Stop			
Stop Talking			
Set Active			
Set Inactive			
Toggle Active			
Teleport To		F	
I			
EDITOR	2	MA Main Scre	A

#### **Planning Speech**

Speech is probably the most complex feature to add to any game. It's why there is so little interactive speech in most role-playing games.

Remember when adding speech the in-game character has to have the last word.

Begin by <u>planning your speech</u> on paper, this avoids confusion later. A typical simple plan might look like this.



Now you are ready to add the speech to your game. It is easier if you add it all in first.

# **Creating Speech in the Game**



1. Click on Media and Speech in the New menu.

2. Add a title to replace **Speech 1**. Using the example given, this would be 'In-game character CO'.

3. Type the speech into the **Speech Text** line.

4. Decide if you want to use text to speech **TTS Speech** or record your own. If using TTS leave the line as **True**. If not, click on the orange arrow and select **False**. To record, click on the **microphone** at the bottom of the editor. When the recording screen opens click on the red circle; to stop, click on the square **stop button**.

5. <u>If it is the in-game character's speech</u> leave **In Player List** as **False**. If it is one of the player's choices, change this to **True**.

6. If you've selected TTS, choose an appropriate **Voicename** from those available on your computer.

 MEDIA
 Meclia (6)

 RECENT
 1: Default Game Over Screen

 Image: Constraint of the set of the set

7. Repeat this process for all of your planned speeches. On the example above, this would be five separate speeches. When you have added the speeches, check that they are all in the Media/speech section on **My Game** menu.

Having created the speech you need to allocate it to the in-game character OR the player list.

#### Allocating Speech to a Character and Player

1. Click on the <u>in-game character</u>. Select **actions** and **Say**. Choose the first speech from the dropdown menu and choose a trigger.



2. Now go to **Media** in the **My Game** menu. Select the first item to be <u>added to the player list</u>. Click actions and **Add to Player List**.

Player Choice of Reply P1a			
ACTIONS	ASSOCIATIONS		
	<b>.</b>		
	2		
	Ver Choice of Repl		

3. Click the arrow and select the **Speech Trigger**. You will be asked to **'Select a piece of Speech Media from your game'**. Select the in-game character's introductory speech, from the **My Game**, **Media** menu.

4. Select Spoken in Conversation by and then click on the character.

5. Repeat this process for the second speech to be Add to Player List.

Note that you can also **Remove from list**. Useful if you want to use speech as a multiple choice test or limit clues.



6. Now add the in-game character's responses. Click on the character, the **Actions** tab and **Say**. Choose the first response from the dropdown menu. Select the **Speech Trigger** and this time the player's first speech, from the **My Game** menu. **Spoken in conversation by** ... this time is the player. To select the player, click on **Player Attributes** at the top of the **My Game** menu.

- 7. Repeat this process for the second response.
- 8. Review the rules and play the game to check that all the speech works.

#### **Other Stuff: Game Attributes and Player Attributes**



These can be found at the top of the My Game menu. Most of the attributes are self-

# Putting it All Together and Making a Game (2 hours)

It's worth giving students a brief to respond to. This can help them think about audience as well as purpose. Briefs can be found in the downloadable teacher support packs which are available free at:

http://www.immersiveeducation.com/downloads/missionmaker/

You will also find training videos, the MissionPlayer and some sample games here.

#### The brief for this exercise is to build a game comprising:

- 5 rooms
- 4 doors, all of which open using different triggers
- a pop up at the start of the game to tell the player what to do
- pick ups that increase the player's health and nutritional economies
- a time limit
- a character who leads the player to an object of your choice
- a clear goal and end point.

Spend a little time thinking about the purpose of your game – what does the player need to achieve? Who is the game for? What sort of challenges will you include?

Some examples of games that have been made:

- Healthy Eating encouraging players to choose food wisely and engage in activities that promote fitness.
- **Counting** helping children recognise numbers and do simple addition.
- Browning encouraging players to engage with and explore the poem My Last Duchess
- Vampire in the West incorporating elements of the vampire myth to create a gothic Western.

