Grade	6	Subject	DT	Lesson number	1	Week number	1	
Unit		Date	e	Time		Page number		
1		WC: 02/0	09/18	45 minutes		14-19		
Equipm	ent	required:		Learning object	<u>ives</u>			
student book				1.1 Identify type	es of I	programming.		
Keywords			programming, g text-based prog	game: gramr	s, graphical programm ning	ing,		
Starter/	Intr	oduction ac	tivity					
Time		Start by go	ing thro	ugh the unit 1 ov	erviev	w, keywords and learni	ng	
10		outcomes	for the u	nit. Opportunity f	for cla	ass discussion and Q&/	۹ on	
minutes	5	'what is pro	ogrammi	ng' and 'what are	e gam	es'.		
Main								
Time		Activity 1						
30		Complete a	activity 1	to introduce son	ne far	nous games from past	and	
minutes	5	present.						
		The activity is about matching the picture with the name of the gan This activity can be discussed in pairs or small groups. Give students minutes to complete this activity. Once complete go through the answers. See answers below;				game. ents 10 e		
		Dicture 2		Super Mario				
		Picture 3			Tokka			
		Picture 4			Sonic	the Hedgehog		
		Picture 5		Zelda				
		Picture 6		Angry Birds				
		Picture 7						
	 Move on to explain games programming and the two types of programming (graphical programming and text-based programming show examples where possible. Activity 2 Complete activity 2 to identify types of programming. The activity is about matching the picture with the type of programming. This activity can be discussed in pairs or small group Give students 10 minutes to complete this activity. Once complete the programming. 					ming), oups. ete go		
		Picture 1		Graphical (Kodu)				

	Pi	cture 2	Text-based (Python)			
	Pi	cture 3	Graphical (Scratch)			
	Pi	cture 4	Graphical (Edware).			
Plenary						
Time	Sur	nmarise lesson, recapping the le	arning objective and the key			
5	voo	abulary used throughout				
minutes						
Assessmen	<u>it</u>	Students should be able to identify graphical and text-based				
<u>focus</u>		programming and popular computer games from past and				
		present.				
<u>Learning</u>		PD training sessions with information on the theory of games				
<u>Curve</u>		development and practical instructions to use Microsoft Kodu will				
		be available on learning Curve	via this link: <u>https://bit.ly/2m3sDOm</u>			
		The access code is: CdScISPHc	UaRPaZSe_9tHg			

Grade	6	Subject	DT	Lesson number	2	Week number	1	
Unit		Date		Time		Page number		
1		WC: 02/09	9/18	45 minut	45 minutes 20-23			
Equipm	ent	required:		Learning obje	<u>ectives</u>			
student	boc	ok		1.2 Define ke	y progra	amming concepts.		
Keywor	ds			programming	g concep	ots, input, processin	g, output	
Starter/	/Intro	oduction activ	vity					
Time		Start by intr	oducin	g key program	nming co	oncepts. Input, proc	essing	
10		and output,	oppor	tunity for Q&A	۱.			
minutes	S							
		Then relate	key co	ncepts to gam	es by as	king students to thi	nk about	
		input, proce	essing a	and outputs fro	om a coi	mputer game they p	blayed	
	before. This is an opportunity for class or group discussion.							
Main								
Time		Activity 3						
30	_	Complete a	ctivity :	3 to check und	erstand	ing of inputs, proces	ssing and	
minutes	S	share with t	he clas	s.	e some a	answers from the gr	oup to	
		The activity is about relating a game they have played before with inputs, processing and outputs. This activity can be discussed in pairs or small groups. Give students 20 minutes to complete this activity. Once complete take some answers from the class. Example answers from the student book below:					e with d in pairs activity. answers	
	1. Can you explain an example of an input from that computer game?			pressing the left an	ow key)			
2. Can you explain a of processing from t computer game?			n an example m that	(e.g. press left a	If the left arrow key sed, you move the c and collect rings.)	' is character		
	3. Can you explain an example of an output from that(e.g. The character moves left the screen. The score increase when rings are collected)				es left on creases I)			
		Move on and explain that we can use a diagram to visualise how software or games work.						

	Activity 4 Complete activity 4 to create a diagram to show how software or games work. The activity is about using the words provided to fill in the blanks to complete an IPO diagram. This activity can be discussed in pairs or small groups. Give students 10 minutes to complete this activity. Once complete talk students through the steps in the process. See answer below;				
	Input Processing Output Contraction of the plane of the				
Plenary					
Time 5 minutes	Summarise lesson, recapping the learning objective and the key vocabulary used throughout.				
Assessment focus	Students should be able to identify inputs, processing and outputs from a game they have played before and be able to create an IPO diagram.				
<u>Learning</u> <u>Curve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdSclSPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	3	Week number	1						
Unit		Date		Time		Page numbe	r						
1		WC: 02/0	9/18	45 minute	es	24-29							
Equipm	ent	required:		Learning object	<u>ctives</u>								
student	bo	ok		1.3 Explain typ	es of g	ames and platforms.							
Keywor	ds			game types (g platform game	enre's) es, 3D g	, action-adventure, RF games, simulation, spo	'G, orts						
Starter/	′lntr	oduction act	ivity										
Time		Start by goi	ng thro	ugh the early hi	story o	f computer games. Th	is could						
10		be used as a	a readin	g comprehensio	on activ	vity followed by class							
minutes	5	discussion or Q&A.											
Main													
Time		Activity 5											
30		Using the information from the early history of computer games ,											
minutes	5	complete activity 5. Teachers could help less-able students by											
		identifying the blanks in the information provided.											
		The activity is about filling in the blanks to create a summary of the early history of computer games. This activity can be discussed in pairs or small groups. Give students 15 minutes to complete this activity. Once complete go through the answers. See answers below;					[:] the in pairs vity.						
				computer									
		Didrik 2			The f	other of video games							
		Didiik 3			Dopa	attier of video games							
		Blank 5			Atari	2600							
		Blank 6											
		Move on an activity actir games. Activity 6 Complete ac games. The activity	d go th ng out 2 ctivity 6 is abou	rough types of -dimensional a to check studer t matching pictu	games, nd 3-di nt's und	opportunity for pract imensional movement derstanding of types o d descriptions to type	ical t in of es of						
		game (genr	e). This	activity can be c	disc <u>us</u> s	game (genre). This activity can be discussed in pairs or small groups.							

	Give students 15 minutes to complete this activity. Once complete go				
	thre	ough the answers. See answers	below:		
	Pie	cture/Description 1	simulation		
	Pi	cture/Description 2	3D or (three dimensional)		
	Pie	cture/Description 3	sports		
	Pi	cture/Description 4	RPG or (Role Playing game)		
	Pie	cture/Description 5	platform		
Plenary					
Time	Summarise lesson, recapping the learning objective and the key				
5	vocabulary used throughout.				
minutes					
Assessmen	<u>it</u>	Students should be able to summarise the early history of			
<u>focus</u>		computer games and identify the type (genre) of computer games.			
Learning		PD training sessions with information on the theory of games			
<u>Curve</u>		development and practical instructions to use Microsoft Kodu will			
		be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>			
		The access code is: CdScISPHcUaRPaZSe_9tHg			

Unit Date Time Page num							
	er						
1 WC: 09/09/18 45 minutes 30-33							
Equipment required: <u>Learning objectives</u>							
student book 1.3 Explain types of games and platform							
Keywordsgame platforms, arcade systems, home of personal computer, laptop, mobile phore	onsoles, , tablet						
Starter/Introduction activity							
Time Start by introducing game platforms . This is an opportunity t	question						
10 students to gauge existing knowledge about game platforms	·						
minutes							
Main							
Time							
30 Activity 7							
minutes Using the information about game platforms to test students	existing						
knowledge; complete activity 7. Differentiate by getting mor	-able						
students to identify 2 or 3 examples for each platform.	students to identify 2 or 3 examples for each platform.						
The activity is about identifying examples for each type of ga	ning						
platform. This activity can be discussed in pairs or small grou	s. Give						
students 10 minutes to complete this activity. Once complete	s to complete this activity. Once complete take						
some answers from the class. Some example answers below:	some answers from the class. Some example answers below:						
Home Console PlayStation 4 or Xbox Or	X						
Laptop MacBook or Microsoft Su	face						
Mobile Phone iPhone or Samsung S8							
TabletiPad or Galaxy Tab							
Move on to recent history of computer games. This could be reading comprehension activity followed by class discussion Activity 8 Complete activity 8 to check student ability to identify game The activity is about identifying 10 game platforms using the information on the recent history of computer games. This ac be discussed in pairs or small groups. Give students 10 minur complete this activity. Once complete go through the answer answers below:	ised as a r Q&A. latforms . ivity can es to . See						

	At	ari Video System			
	Xb	box 360			
	Pl	ayStation 3			
	Ni	ntendo Wii			
	Sc	ocial Media			
	Μ	obile Phones			
	Pl	ayStation 4			
	Xb	box One X			
	Ni	ntendo Switch			
	Act	ivity 9			
	Сог	mplete activity 9 to check studer	nt's ability to identify game		
	pla	tforms. Teachers could help less	s-able students by identifying the 7		
	pla	tforms that must be found in the	e grid.		
	Thi	s activity is about finding 5 gam	ing platforms in the grid provided		
	usii	ng the list made in activity 8. Thi	is activity can be done in pairs. Give		
	stu	dents 10 minutes to complete th	nis activity. Once complete go		
	thre	ough the answers. See answers l	below:		
	Ni	ntendoWii			
	Sc	ocialMedia			
	Μ	obilePhones			
	Pl	ayStation4			
	XboxOneX				
Plenary					
Time	Sur	Summarise lesson, recapping the learning objective and the key			
5	vocabulary used throughout.				
minutes					
Assessment		Students should be able to sur	nmarise the early history of		
focus		computer games and identify t	the type (genre) of computer games.		
Learning		PD training sessions with inform	mation on the theory of games		
<u>Curve</u>		development and practical inst	ructions to use Microsoft Kodu will		
		be available on learning Curve	via this link: https://bit.ly/2m3sDOm		
		The access code is: CdScISPHc	:UaRPaZSe_9tHg		

Grade	6	Subject	DT	Lesson number	2	Week number	2	
Unit		Date		Time Page number				
1		WC: 09/09	9/18	45 minute	es	34-39		
Equipm	ent	required:		Learning obje	Learning objectives			
student	bo	ok		1.4 Recognise	Kodu a	and its interface.		
comput	er							
Microso	oft k	Kodu					. <u>,</u>	
Keywor	ds			tool palette, h	u, load ome m	, save, new, zoom f enu, move camera,	eature, orbit	
				camera				
Starter/	'Intr	oduction act	ivity					
Time		Start by intr	oducing	y Microsoft Kod	u and e	explain the key con	nmands;	
15		zoom featu	re, tool	palette, home n	nenu, n	nove camera and o	rbit	
minutes	5	camera. This	s could	be done as a cla	ass den	nonstration by the	teacher	
		using pages	32-37	in the student b	ook.			
Main								
11me		The Kender interferes						
25 minute	_	The Kodu Interface						
		Students should open Kodu on their computers and practice creating, saving and loading a world from the home menu , using the zoom feature , move camera tool and orbit camera feature (pages 32-37 in the student book). Offer extra help and support to students where required.						
 Students should spend at least 5 minutes practicing each technique Saving and loading worlds from the home menu Zoom feature Move camera tool Orbit camera feature 				:hnique:				
		There is an opportunity to introduce appropriate file naming here. This could be done as a class discussion, students should understand how and why this is done. Students could then save a Kodu world using their name and a description eg. "Tom Smith First World".						
Plenary								
Time	_	Summarise	lesson,	recapping the le	earning	objective and the	key	
5		vocabulary u	used th	oughout.				
minutes	5							

<u>Assessment</u>	In Kodu students should be able to load and save worlds, use the
<u>Focus</u>	zoom feature, move camera tool and orbit camera.
Learning	PD training sessions with information on the theory of games
<u>Curve</u>	development and practical instructions to use Microsoft Kodu will
	be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>
	The access code is: CdScISPHcUaRPaZSe_9tHg

Grade	6	Subject	DT	Lesson number	3	Week number	2	
Unit		Date		Time	<u> </u>	Page number	1	
1		WC: 09/09	/18	45 minutes	5	40-44		
Equipm	ent	required:		Learning object	tives			
student	bo	ok		1.4 Recognise Kodu and its interface.				
comput	er							
Microsoft Kodu								
Keywor	ds			object menu, o	bjects	, characters, help		
Starter/	Intr	oduction activ	/ity					
Time		Start by remi	nding	students about k	Kodu i	ncluding the key comr	nands;	
10		zoom feature	e, tool j	palette, home m	enu, n	nove camera and orbit	i .	
minutes	5	camera.						
Main								
Time								
30		Introduce the	e objec	t menu. Like the	previ	ous lesson the object r	nenu	
minutes	5	and adding a	a chara	cter could be sho	own fi	rst with a class		
		demonstration.						
		Object menu	and a	dding a characte	er step	by step		
		Direct studer	ata ta a					
		a character s	ten hv	sten instructions	in th	a student hook on nac	1001119 105 38-	
		42 Offer evt	ra heln	step instructions in the student book on pages 56-				
		42. Oner exti	aneip		studei	its where required.		
		As students a	are wor	rking highlight the help available to them in Kodu				
		on character	s and o	bjects by pressir	ng the	Y key.		
		Students sho	ould ha	ve now created a	a worl	d with 5 obiects and 2		
		characters. P	ossible	solution below;		5		
		Remind stud	ents ak	pout appropriate	file na	aming and make sure		
		students save	e their '	worlds using the	eir nan	ne and a description, e	.g.	
		"Tom Smith	5 Objed	cts".				

Plenary						
Time Sum		marise lesson, recapping the learning objective and the key				
5	voca	abulary used throughout.				
minutes						
Assessmen	<u>t</u>	In Kodu students should have created a world with 5 objects, 2				
<u>focus</u>		characters and saved the world with an appropriate file name.				
<u>Learning</u>		PD training sessions with information on the theory of games				
<u>Curve</u>		development and practical instructions to use Microsoft Kodu will				
		be available on learning Curve via this link:				
		https://bit.ly/2m3sDOm				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	1	Week number	3		
Unit		Date		Time		Page numb	ber		
1		WC: 16/09/	′18	45 minutes	5	45-50			
Equipm	ent	required:		Learning object	<u>tives</u>				
student	bo	ok		1.4 Recognise k	Kodu a	and its interface.			
comput	er								
Microso	oft k	Kodu							
Keywor	ds			move objects, c size	chang	e objects, colour, rot	ation,		
Starter/	'Intr	oduction activ	ity						
Time		Start by prom	pting	students to oper	n the	world they created in	n the		
10		previous lesso	on. The	eir worlds should	l have	sensible names eg.	"Tom		
minutes	5	Smith 5 Objects". Assess progress with objects and characters,							
		students shou	uld hav	e 5 objects and 2 characters in their world. Allow					
		some extra tir	ne to	achieve this if re	quired	ł.			
Main									
Time		Introduce mo	ving a	and changing objects and characters again this					
30		could be don	e with	a class demonstration of move, change colour ,					
minutes	5	change size a	nd cha	ange rotation .					
		Moving and o	hangi	ng objects and c	harac	ters step by step			
	Have students use characters then fol characters step-by book.		s use t en folle ep-by-	the world they created with 5 objects and 2 ow the moving and changing objects and step instructions on pages 43-48 in the student			2 udent		
		Offer extra help and support to students where required. More able- students can add and change additional objects and characters.							

	Ther	re is a guide on saving on pages 47-48 of the student book, but					
	аррі	ropriate file naming.					
Plenary							
Time	Sum	marise lesson, recapping the learning objective and the key					
5	voca	abulary used throughout.					
minutes							
Assessmen	<u>it</u>	In Kodu students should have opened a world with 5 objects, 2					
<u>focus</u>		characters and changed colour, size and rotation of the objects					
		and characters.					
<u>Learning</u> <u>Curve</u>		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>					
		The access code is: CdScISPHcUaRPaZSe_9tHg					

Grade	6	Subject	DT	Lesson number	2	Week number	3
Unit		Date		Time	Time Page number		
1/2		WC: 16/09	/18	45 minutes	5	51-58	
Equipm	ent	required:		Learning object	tives		
student	bo	ok		1.1 Identify typ	es of p	programming.	
				1.2 Define key	progra	amming concepts.	
				1.3 Explain type	es of g	ames and platforms.	
				1.4 Recognise ł	Kodu a	and its interface.	
				2.1 Understand	l planr	ning and game develop	oment.
Keywor	ds			planning, goal,	decor	nposition, time manag	ement,
				delegation			
Starter/	′Int r	oduction activ	vity				
Time		Unit 1 pop q	uiz				
15		Start by brief	fly reca	pping the key po	oints f	rom Unit 1 then direct	
minutes	5	students to c	comple	te the Unit 1 pop	o quiz	and evaluation on pag	jes 52-
		53 in the stu	dent bo	ook.			
			f	ultin o la classu			
		See answers	tor ma	rking below:		endical and tout based	
		Question 1				puts processing and outputs	
		Question 2		B. The character moves left on			
		Question 5		the screen			OII
		Question 4		A. Simulator, role playing ga		ames	
				(RPG), platform games			
		Question 5			C. A	graphical programmin	g
					lang	uage to make games	
Main							
Time		Move on and	d go th	rough the unit 2	overv	iew, keywords and lea	rning
25		outcomes fo	r the u	nit. Introduce pla	anning	on page 56 of the stu	dent
minutes	5	book, empha	asise th	e importance of	plann	ing, especially for large	er
		projects com	pleted	by teams of peo	ople. C	pportunity for Q&A to	o assess
		student unde	erstand	ing.			
		Activity 1					
		Complete ac	tivity 1	to test student's	s unde	rstanding of planning .	
		This activity i	s abou	t filling in the bl	anks te	o create a description t	for
		each part of	the pla	nning process T	his ac	tivity can be discussed	in
		pairs or smal	l grour	os. Give students	10 m	inutes to complete this	5
		activity. Once	e comp	lete go through	the a	nswers. See answers be	elow:

	Bla	nk 1	goal			
	Bla	nk 2	smaller and/or easier to do			
	Bla	nk 3	management			
	Bla	nk 4	delegation			
Plenary						
Time	Sum	nmarise lesson, recapping the le	earning objective and the key			
5	vocabulary used throughout.					
minutes						
Assessment focus		Students should have completed the unit 1 pop quiz using prior knowledge and be able to explain the stages in the planning process.				
<u>Learning</u> <u>Curve</u>		PD training sessions with infor development and practical ins be available on learning Curve <u>https://bit.ly/2m3sDOm</u>	rmation on the theory of games structions to use Microsoft Kodu will e via this link:			

Grade	6	Subject	DT	Lesson number	3	Week number	3	
Unit		Date		Time		Page number		
2		WC: 16/09	/18	45 minute	es	59-61		
Equipm	ent	Required:		Learning object	<u>ctives</u>			
student	bo	ok		2.1 Understand	d planr	ning and game develop	oment.	
Keywor	ds			game develop testing	ment,	concept, design, proto	typing,	
Starter/	'lntr	oduction activ	vity					
Time		Start by intro	ducing	games develo	pment	including the four mai	n	
10		steps; conce	ot, desi	gn, prototyping	and te	esting.		
minutes	5							
Main								
Time		Activity 2						
30		Complete ac	tivity 2	using the inform	mation	on games developme	nt and	
minutes	5	descriptions	provid	ed to help stude	ents re	member the four parts	of the	
		games (or so	ftware) development j	process	5.		
		This activity i	s abou	t unscrambling	the wo	ords to identify each pa	art of	
		the developr	nent p	r ocess . This acti	vity car	n be discussed in pairs	or	
		small groups	. Give s	students 15 min	utes to	complete this activity	. Once	
		<u>complete go</u>	throug	gh the answers.	See an	swers below:		
		Word 1			Testir	າໆ		
		Word 2	2		Design			
		Word 3			Proto	otype		
		Word 4		Concept				
		Move onto p for developir diagram . The use the word Activity 3 Give student the diagram refined and e	age 61 ng a ga ere is ar ls provi s 10 m to expl evaluat	of the student me or other sof n opportunity fo ided to complet inutes to compl ain the process ed during devel	book, ftware or class te the c ete this , e.g. se lopmer	explaining that the pro can also be shown usin discussion before stud diagram. s activity. Once comple everal prototypes teste nt. See answer below:	ocess ng a dents ete use ed,	

		Concept 1. Design/Refine Prototype 3. Test/Evaluate 5. Make Prototype 5. Finish				
Plenary	Γ					
Time	Sum	marise lesson, recapping the learning objective and the key				
5	voca	abulary used throughout.				
minutes						
Assessmen	<u>it</u>	Students should know the parts of the game development				
<u>focus</u>		process and should have created a diagram to show how the process works.				
<u>Learning</u>		PD training sessions with information on the theory of games				
<u>Curve</u>		development and practical instructions to use Microsoft Kodu will				
		be available on learning Curve via this link:				
		https://bit.ly/2m3sDOm				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	1	Week number	4
Uni	t	Date		Time		Page number	
2		WC: 23/09)/18	45 minute	S	62-63	
Equipm	ent re	equired:		Learning obje	<u>ctives</u>		
student	book	ζ.		2.2 Recognise	graph	ical aspects of game d	lesign.
Keywor	ds			graphical, gam	ne desi	gn, storyboarding	
Starter/	Introd	duction activit	y				
Time		Start by expl	aining	that games des	s ign ha	s two parts; graphical	and
10		logical. In gr	aphical	design we focu	us on h	now the game world, c	objects
minutes	5	and characte	ers will	look (size, shap	e, text	ure etc.) In logical des	ign we
		focus on how	v the b	locks or code (orogra	mming) will make the	game
		work (e.g. re	act to p	player input etc	.).		
Main							
1 ime 30 minu	utes	Introduce sta 62 of the stu teacher shou games they making a cla complete the Move onto a game from t storyboard t Activity 3 Complete ac computer ga This activity chance for se storyboards Once complet the class. Eve general answ	oryboa Ident b Ild pro enjoy v Iss list o is task. Activity he list. han the tivity 3 ame the is abou tudents work. (ete sho ery stuo ver gui	rding as a grap ook. Before stu- mpt students to which could be f of computer gan 3 and direct stu Challenge stud e example show by having stud e example show by having stud e example show to developing sk s to demonstrat Give students 1 ow and explain s dent will storybo dance is include	hical d dents a o make followe mes. (udents ents to n on p lents c e. cetchin some <u>c</u> oard a ed belo	esign technique using attempt activity 3 the a list of 10 computer ed by a class discussio Give students 15 minur to create a storyboard o produce a better bage 62 of the student reate a storyboard for ag (graphical) skills and understanding of how tes to complete this a good student storyboard different game, so so	page n and tes to d for a : book. a d a w ctivity. ards to me

	Sta	rt	Middle	End			
	Dra sho gai	awing (sketch) owing start of the me	Drawing (sketch) showing middle of the game.	Drawing (sketch) showing end of the game.			
	De Wr of the gai	scription: itten explanation what happens at e start of the me.	Description: Written explanation of what happens during the game.	Description: Written explanation of what happens at the end of the game (e.g. how to win).			
Plenary			•	•			
Time 5 minutes	Sum voca	marise lesson, reca abulary used throug	pping the learning obj ghout.	ective and the key			
Assessment focus		Students should understand there are 2 parts to design; graphical and logical. Students should be able to understand and create a storyboard.					
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcUaRPaZSe 9tHg					

Grade	6	Subject	DT	Lesson number	2	Week number	4		
Unit		Date		Time		Page number			
2		WC: 23/09	/18	45 minutes	;	64-71			
Equipm	ent	required:		Learning object	<u>tives</u>				
student	bod	ok		2.2 Recognise g	graphi	cal aspects of game de	sign.		
comput	er			2.4 Practise des	ign ar	nd programming skills i	n a		
Microso	oft K	odu		series of activiti	es.				
Keywor	as Inter			terrain, ground	brusr	h, up/down tool, flatten	1001		
Starter/	Intro		'ITY		. la : a at	and also as at any in Kardu			
1 Ime		Start by rem	inaing	students about c	object	and characters in Kodu	·,		
10 minutor	_	move on to i	ntroau h mate	ce terrain develo	oland	n in Kodu and Cover the	e bic		
minutes	>	introduction	n, mate	ha done as a clas	or and	nonstration with the tea	nis Schor		
			64-71	in the student ho	nok				
Main		using pages	0111						
Time									
30		How to creat	te and	change terrain, s	tep by	y step			
minutes	5			U		•			
		Direct studer	nts to c	pen Kodu and fo	ollow	the create and change			
		terrain step-	by-step	o instructions in t	he stu	udent book on pages 64	4-71.		
		Offer extra h	elp and	d support to stuc	lents	where required.			
		Students sho	ould ha	ve now created a	a worl	d using 3 terrain materi	als,		
		nill terrain, c	naracte	ers and objects. I	he wo	orid they create should	nave		
		similar teatui	res to t	ne example belo	W.				
		🇯 Kodu Game Lab (1.4.216.0, General)				-	σ×		
		 Add/Select Object Options 							
		Tab Find Next Characte F3 Toggle Snap to Grid	77						
		F4 Center Camera Space Move Camera							
		Home Home Menu Esc Run							
				5					
				6					
		• Undo(7)		-					
				[]					
				· 🖤 🤾 🌫 🛦	* 🏷 🐔	🔖 🏷 🕸 🔍 🏏			
				Object Tool: Add or Edit (Sharacters :	and Objects	H		

	Make sure students save their Kodu World, remind students about appropriate file naming using their name and a description, e.g. "Tom Smith Create Terrain".					
Plenary						
Time	Sum	Summarise lesson, recapping the learning objective and the key				
5	voca	vocabulary used throughout.				
minutes						
Assessment	<u>:</u>	Students should have used terrain tools to create a world with 3				
<u>focus</u>		terrain materials and hill terrain.				
Learning Cu	<u>irve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	3	Week number	4		
Unit		Date		Time		Page number	r		
2		WC: 23/09	/18	45 minute	S	64-72			
Equipm	ent	required:		Learning object	<u>ctives</u>				
student	bod	ok		2.2 Recognise	graphi	cal aspects of game d	esign.		
comput	er			2.4 Practise de	sign ar	nd programming skills	; in a		
Microso	oft K	odu		series of activit	ties.				
Keywor	ds			terrain, ground water tool	d brush	n, up/down tool, flatte	n tool,		
Starter/	Intro	oduction activ	ity						
Time		Start by pror	npting	students to ope	en the v	world they created in	the		
15		previous less	on. The	eir worlds shoul	d have	sensible names e.g. "	Tom		
minutes	5	Smith Create	Terrai	n". Assess prog	1". Assess progress with terrain and objects.				
		Students sho	ould ha	ve 3 types of terrain material, hill terrain, rocks,					
		trees and a c	haracte	er. Allow some e	extra ti	me to achieve this if re	equired		
		and ensure s	tudent	s save their pro	gress.				
Main									
Time		Move onto a	ctivity	5 and challenge	stude	nts to re-create the te	rrain		
25		shown in the	activit	y using a new w	orld in	Kodu. Teacher may n	need to		
minutes	5	demonstrate	using	the water tool p	prior to	this activity.			
		Activity 5							
		Direct students to open Kodu and refer to the terrain shown in the activity on page 72 of the student book. This is an opportunity for students to demonstrate the skills they have developed in Kodu. C extra help and support to students where required.				the for J. Offer			
		Their world s book as show	hould vn belo	have similar fea ow:	tures t	o the world in the stud	dent		

	Obje	ects and tools required to create this terrain.				
	Obje • 1	ects: I Rover character				
	• 2	2 rocks				
	• 3	3 trees				
	• 1	l lily pad				
	Tool • (ls: Ground brush				
	• (Jp/down tool				
	• F	latten tool				
	• \	Nater tool				
	Mak nam	e sure students save their Kodu world, again use appropriate file ing e.g. "Tom Smith Activity 5".				
Plenary						
Time	Sum	marise lesson, recapping the learning objective and the key				
5 minutes	voca	abulary used throughout.				
		Students should be able to select the objects and tools required				
focus	<u>-</u>	to re-create the example terrain in the student book.				
tocus Learning Curve		to re-create the example terrain in the student book. PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: https://bit.ly/2m3sDOm				

The access code is: CdScISPHcUaRPaZSe_9tHg
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Grade	6	Subject	DT	Lesson number	1	Week number	5		
Uni	t	Date		Time		Page number			
2		WC: 30/09/18		45 minut	es	72			
Equipm	ent re	equired:		Learning obje	<u>ectives</u>				
student	book	C		2.2 Recognise	e graph	ical aspects of game d	lesign.		
comput	er			2.4 Practise design and programming skills in a					
Microso	oft Ko	du		series of activities.					
Keywor	ds			graphical, gar	ne desi	gn, terrain, objects			
Starter/	Intro	duction activit	ty .						
Time		Start by pro	mpting	students to o	pen the	world they created in	the		
10		previous les	son. Th	ieir worlds sho	uld hav	e sensible names e.g.	lom		
minutes	5	Smith Activi	ty 5". /	Assess progres	s with t	errain and objects. Allo	SM		
		some extra t	time to	complete the	activity	if required, make sure	•		
Main		students sav	e their	WORK.					
			4 ¹ ¹ 4			auto to drow (alcotalo o	desian		
11me	.+~~	for their own	activity	6 and challeng	je studi	ents to draw/sketch a	aesign		
50 minu	lles	characters	runiqu	ie terrain inclu		CKS, LIEES, Waler and			
		characters.							
		Activity 6							
This activity is a chance for str (graphical) skills. Give student the activity. The design should Rocks Trees Water Characters				ance for studer ive students 10 sign should ha	nts to d) minuto ve the ⁻	emonstrate their sket o es to complete this pa following features:	: hing rt of		
		Direct stude designs to c This is anoth they have de this part of t where requi however: • The t to the	nts to reate t her opp evelope the acti red. Th errain a e sketc	open Kodu, stu he terrain and oortunity for stu ed in Kodu. Giv vity and offer e here is no exam and objects cre hed design.	idents r objects udents re stude extra he ople ans eated in	must then use their ske using a new world in to demonstrate the sk ents 20 minutes to con elp and support to stud swer for this activity Kodu should be very	etched Kodu. ills nplete dents similar		

	Make sure students save their Kodu world, again use appropriate file naming e.g. "Tom Smith Activity 6".					
Plenary						
Time	Sum	marise lesson, recapping the learning objective and the key				
5	voca	abulary used throughout.				
minutes	25					
Assessment		Students should be able to sketch a design for terrain and				
<u>focus</u>		objects, then select the objects and tools required to create the terrain in Kodu.				
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	2	Week number	5		
Unit		Date		Time		Page numbe	r		
2		WC: 30/09	9/18	45 minute	es	73-78			
Equipm	ent	required:		Learning obje	Learning objectives				
student	bod	ok		2.3 Apply basi	c contr	ol commands in Kodu	J.		
comput	er								
Microso	oft K	odu							
Keywor	ds			control comm	ands, v	vhen, do, rows, tiles			
Starter/	'Intro	pduction activ	ity						
Time		Start by intro	oducing	g Control Comn	nands i	n Kodu explaining ho	W		
15		When and D	o are u	sed with Rows	and Til	es. Like other step by	steps,		
minutes	5	control com	mands	could be done	with a	class demonstration.			
Main		Γ							
Time									
25		Character m	oveme	nt step by step					
minutes	5	Direct studen by-step instr students 20 support to si with a rover read for the state of the state of the state of the state of the state of the state of the state of the sta	nts ope ructions minute tudents charact	en Kodu and fol s in the student s to complete t s where required ter programmed	low the book of his actind. Stud d with the section of the section	e character movement on pages 73-77. Give vity and offer extra he ents should create a w the following comman	: step- elp and vorld nds:		
		Ensure stude again use ap Movement".	ents tes propria	t the character ate file naming	moven e.g. "To	nent and save their wo om Smith Character	ork,		
		Move onto a character mo	activity ovemer	7 to assess stuc nt.	dent un	derstanding of tiles u	sed for		

Activity 7 This activity is about putting the tiles (commands) in the correct order to program movement (control commands). Give students 5 minutes to complete this activity. Once complete go through the answers. See answers below:						
m						
control commands for a character in Kodu.						
5						
development and practical instructions to use Microsoft Kodu						
will be available on learning Curve via this link:						
https://bit.ly/2m3sDOm						

Grade	6	Subject	DT	Lesson number	3	Week number	5	
Uni	t	Date		Time		Page numbe	r	
2		WC: 30/09	9/18	45 minutes	45 minutes 79-85			
Equipm	ent re	equired:		Learning object	Learning objectives			
student	bool	K		2.3 Apply basic	contr	ol commands in Kod	lu.	
computer				2.4 Practise design and programming skills in a				
Microso	oft Ko	du		series of activities.				
Keywor	ds			objects, terrain, characters, control commands				
Starter/	Intro	duction activit	ty 			70.05 (1)		
lime		Start by intro	oducing	g the Unit 2 task	sheet	on pages 79-85 of t	he	
10		student boo	k. Make	e it clear the eva	luatio	n on pages 84-85 wil	Ibe	
minutes	5	completed b	by the t	eacher.				
		Linit 2 took o	haat					
20 minu	itor		neet					
50 minu	lles	Studente wil		acted to compl	ata th	a tack chaot by work	ina	
		indopondoni	the exp	t is important th	ete the	toachor ovolains clos	ng arly	
		what the stu	dents r	nust do to com	at the	ne task	лту	
		what the stu	uciită i					
		Facilitate the arise.	e studei	nts work and off	er helj	o if any technical issu	ies	
		By the end of the first session students should have created the required terrain in Kodu and saved the world with a sensible name e.g. "Tom Smith Unit 2 Task Sheet".					ie iame	
		The example task sheet:	e below	meets all terrai i	n and	object requirements	for the	
		6 Drag Texelin 3 Orbit Cama 4 Saroll Whae Teal Find Nacts 14 Center Cam 5 Unde(2)	n Re 1/200m Ganracter era		IIII GR			

Plenary					
Time	Summarise lesson, recapping the learning objective and the task				
5	shee	et requirements.			
minutes					
<u>Assessment</u>		Students should be able to create the terrain and objects			
<u>focus</u>		required for the unit 2 task sheet.			
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcLIaRPa7Se 9tHg			

Grade	6	Subject	DT	Lesson number	1	Week number	6	
Uni	t	Date		Time	Time Page number			
2		WC: 07/1	0/18	45 minutes 79-86				
Equipm	ent r	t required: <u>Learning objectives</u>						
student	bool	k		2.3 Apply basi	c contr	ol commands in Ko	odu.	
comput	er			2.4 Practise de	esign ar	nd programming sl	kills in a	
Microso	oft Ko	Kodu series of activities.						
Keywor	ds	objects, terrain, characters, control comma					mands	
Starter/	Intro	duction activ	ity					
Time 10 minutes	5	Start by pro task sheet ii names e.g. ' should have	mpting n the pro 'Tom Sr e created	students to ope evious lesson. T nith Unit 2 Task d the required t	en the heir wo Sheet errain i	world they started orlds should have s '. Check progress, s n the previous less	for the ensible students son.	
Main		Γ						
30 mini	utes	 Students should move on and program the rover character to move jump and talk. More capable students may also be given some extra objectives, eta add extra objects and commands to the task sheet work, e.g. add apples and balloons to the terrain, bump command so character calinteract with the apples or balloons. Facilitate the students work and offer help if any technical issues arise. Teachers must complete the task sheet evaluation on pages 84-85 the student book. This can be done by reviewing the worlds creater by each student either during or after the lesson. 					to move , ives, e.g. add acter can sues 84-85 of created	
		Students wh activity 8 in By the end of sheet and sa "Tom Smith The example	no comp the stud of the se aved the Unit 2 ⁻ e below	olete all required dent book. ession students e world created Task Sheet". meets all terrai	d steps should in Kod	can move on and have completed th u with a sensible n object requirement	complete he task ame, e.g. ts for the	

	🍐 Kodu Game Lab (1.4.216.0, General)	- Ø X
	 ↓ Drag Tarrain ↓ Orbit Gamera ↓ Grouf Wheel Zoom Image Find Next Character Image Canter Camera 	e Gamaria
	These are the tiles required to app	bly control commands to the
	character in the task sheet:	,
	Kodu Game Lab (1.4.216.0, General)	- • ×
	 Add/Change Tile Dolate Tile Dolate Tile Tere Add/Change Tile Tere Add/Change Tile Tere Prev Page Defet Dolate Tile Return Tere Print Kode Tere Print Kode<td>€</td>	€
	Activity 8	
	Activity 8	
	Use activity 8 as extension work for the task sheet. The activity is about using the wor and create a summary of what stu See answers below:	or students who have completed rds provided to fill in the blanks idents have learned during the unit.
	Blank 1	Program
	Blank 2	Move
	Blank 3	lump
	Blank 4	Terrain
Planan		
	Comparenties losses and the	
rime	Summarise lesson, recapping the	learning objective and the task
5	sheet requirements.	
minutes		

Assessment	Students should be able to create the terrain and objects
<u>focus</u>	required and add control command to the rover character to
	complete the Unit 2 task sheet.
Learning Curve	PD training sessions with information on the theory of games
	development and practical instructions to use Microsoft Kodu
	will be available on learning Curve via this link:
	https://bit.ly/2m3sDOm
	The access code is: CdScISPHcUaRPaZSe_9tHg

Grade	6	Subject	DT	Lesson number	2	Week number	6		
Uni	t	Da	ite	Time		Page number			
2/3		WC: 07	/10/18	45 minute	45 minutes 86-94				
Equipm	ent re	equired:		Learning obje	Learning objectives				
student	book			2.1 Understan	2.1 Understand planning and game				
				development.	development.				
				2.2 Recognise	graph	ical aspects of game	design.		
				3.1 Define rules, conditions and actions in Kudo.					
Keywor	ds			rules, conditio	ns, act	ions			
Starter/	Intro	duction act	tivity						
Time		Start by b	oriefly reca	apping the key	points	from Unit 2 then dire	ct		
15		students	to comple	ete the Unit 2 qu	uiz on	page 86 in the stude	nt		
minutes	5	book.							
		See answ	ers for ma	arking below:	-				
		Questio	n 1		Any '	y 1 of the following: Setting a			
					Goal,	Goal, Decomposition, Time			
				Management, Delegation					
		Questio	<u>n 2</u>		Games Development				
		Questio	n 3		Any 2 of the following: Concept,				
					Design, Prototyping, Testing				
		Questio	n 4		Grou	Ground Brush			
		Questio	n 5		Acce	pt answers like:			
						lee vight click and cal			
					Use t	re fight click and see	JCL		
					prog	ramming page Add t	iloc to		
					the V	Vhen and Do boyes in			
						on the name	1 a		
Main					10000				
Time									
25 minu	ites	Move on	and go th	rough the unit	3 over	view keywords and l	earning		
25 11110	1000	outcome	s for the u	init.	5 6761	them, keywords and h	sannig		
Introduce rules . cor				nditions and ac	tions c	on page 92 of the stud	dent		
		book. Oj	oportunity	/ for Q&A or cla	ss disc	ussion. Teacher could	d also		
		explain s	ome exam	ples of game co	onditic	ons and game actions	before		
		students	move ont	o activity 1.		-			

	Acti	vity 1							
	Con action This creat disc com ansv	omplete activity 1 to test student understanding of conditions and ctions in games . In activity is about matching game conditions with actions to eate in the blanks to create game rules. This activity can be scussed in pairs or small groups. Give students 15 minutes to omplete this activity. Once complete go through the answers. See aswers below:							
	The key	e player presses the arrow /s.	Character moves						
	The	e character collects an item.	Item disappears, player score is increased						
	The of	The character reaches the end Show score and load next of the level.							
	Th	e game time runs out.	Show Time Up message and endgame						
	The	e character is hit by an emy.	Reduce character health points.						
	The po	e character has no health ints left.	Show Game Over message and endgame.						
Plenary			·						
Time 5	Sun voca	Summarise lesson, recapping the learning objective and the key vocabulary used throughout.							
minutes									
Assessment		Students should have completed the unit 2 quiz using prior							
TOCUS		knowledge and be able to match game conditions to game actions to create game rules.							
Learning Cur	<u>ve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>							
		The access code is: CdScISPHcUaRPaZSe_9tHg							
Grade	6	Subject	DT	Lesson number	3	Week number	6		
----------------	--------	---	----------------	------------------------------	---------------------	--	-------	--	--
Uni	t	Date		Time		Page number			
3 WC: 07/10/18)/18	45 minutes	45 minutes 95-97				
Equipm	ent re	equired:		Learning objec	tives				
student	book	ζ		3.3 Construct a	desig	n for the mini-project	[
				game.	-				
Keywor	ds			planning, conc	ept				
Starter/	Introd	duction activit	ty						
Time		Start by intro	oducing	g the Unit 3 min	i proje	ect starting on page 9	5 of		
10		the student	book. I	n the mini proje	ct stu	dents will plan , <mark>design</mark>	and		
minutes	5	create a sim	ple cor	nputer game.					
Main									
Time		Explain that	all proj	ects should be p	blanne	ed properly to increase	e the		
30 minu	utes	chance of achieving a successful outcome. Then move onto activity							
		2.							
		Activity 2							
		Complete activity 2 tests to introduce project planning for the mini project.							
		This activity is about matching the planning stages with the descriptions to create a plan for the mini project. This activity can be discussed in pairs or small groups. Give students 10 minutes to complete this activity. Once complete go through the answers, explaining the planning for this project. See answers below:							
		Setting a G	oal		The g	joal is to develop a sir	nple		
					comp	outer game.			
		Decomposi	ition		We c	an break down			
				(decompose) the project into			to		
					small	er tasks:			
					1. Ga	me concept			
					2. Ter	rain and object desig	n		
					3. Character design				

	 4. Storyboard/Flowchart – (Logic) 5. Create terrain and character 6. Programming (Logic) 7. Testing and evaluation
Time Management	The teacher will plan how much time we have to complete each task in the project.
Delegation	We are working individually so won't have to delegate in this project.

Move on and explain that a **concept** is an idea for a game or other creative project and that students will get a choice of 2 concepts for their mini-project game.

Activity 3

Complete activity 3 to create the descriptions of the two game **concepts** (Apple collector or Balloon popper).

This activity is about filling in the blanks with the words provided to create two game concepts. This activity can be discussed in pairs or small groups. Give students 10 minutes to complete this activity. Once complete go through the game concepts and possible answers. Make sure students then choose which concept they will use for the mini project. See answers below:

Concept 1 – Apple collector

When the game starts the <u>______Rover or Cycle__</u> character will be in <u>_______Bessert or Forrest or Unknown__</u> terrain. The character must search the terrain and collect apples.

When the character has collected _5 or 10_ apples, the player wins the game.

Concept 2 – Balloon popper

	Wł C sea Wł wir	nen the game starts the Rover or Cycle character will be in Dessert or Forrest or Unknown terrain. The character must arch the terrain and pop the balloons. Then the character has popped 5 or 10 balloons, the player hs the game.				
Plenary						
Time	Sum	marise lesson, recapping the learning objective and the key				
5	voca	ibulary used throughout.				
minutes						
<u>Assessment</u>		Students should have created a plan for their mini project and				
<u>focus</u>		created and chosen a game concept for their project.				
Learning Cur	ve	PD training sessions with information on the theory of games				
		development and practical instructions to use Microsoft Kodu				
		will be available on learning Curve via this link:				
		https://bit.ly/2m3sDOm				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	1	Week number	7			
Uni	t	Date	Date			Page number				
3		WC: 14/10)/18	45 minut	es	97-98				
Equipm	ent re	equired:		Learning obje	<u>ectives</u>					
student	book	C		3.3 Construct	a desig	gn for the mini-project	τ			
				game.						
Keywor	ds			objects, terrai	in, desi	gn				
Starter/	Intro	duction activit	ty							
Time		Start by rem	Start by reminding students about the mini project and ensure all							
5		students hav	ve chos	sen a concept f	or their	r mini project game, ei	ither			
minutes	5	apple collec	tor or l	balloon popper	r. (Activ	ity 3).				
Main		Γ								
Time		Activity 4								
35 minu	utes									
		Complete ad	ctivity ²	where studen	ts will c	demonstrate understa	nding			
		of their chos	sen cor	ncept by choos	ıng obj	ects.				
		- 1 · · · ·	• •		6.0					
		This activity	is abol		the	objects they need for	the			
		nini-project	. game	. Give students	nu min ab tha	answers. Soo answers	bolow			
		activity. One	e com	biete, go thiou	gii the	allswers. See allswers	Delow.			
		Apple colle	octor az	ame	5 or	10 apples				
			ctor ge		Trees, Rocks etc.					
		Balloon po	pper		5 or 10 balloons					
			ppe.		Trees	s. Rocks etc.				
		Move on an	d expla	ain that, using t	he list	of objects, we are now	/ aoina			
		to design the terrain and objects for the mini-project game.								
		Activity 5								
		_								
	Complete activity 5 where students will demonstrat				demonstrate understa	nding				
		of their chosen concept by designing the terrain and objects.								
		This activity	is abou	ut sketching (d	raw) a c	design of the terrain a	nd			
		objects for t	he min	i-project game	using	the list of objects from	1			
		activity 4. Th	nis is a	chance for stud	dents to	demonstrate creative	e skills,			
		they may als	so add	colour to the c	lesign.	Give students 25 minu	ites to			
		complete th	is activ	ity.						

	Once complete, check sketched designs. Include all objects from the list made for activity 4.					
Plenary						
Time	Sum	nmarise lesson, recapping the learning objective and the key				
5	voca	abulary used throughout.				
minutes						
<u>Assessment</u>		Students should have created a list of objects for their mini-				
<u>focus</u>		project game and used the list to sketch a design of the terrain				
		and objects for the mini project game.				
Learning Cur	<u>ve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	2	Week number	7				
Uni	t	Date		Time		Page number					
3		WC: 14/10)/18	45 minute	S	99-101					
Equipm	ent re	equired:		Learning object	<u>ctives</u>						
student	book			3.3 Construct a game.	a desig	n for the mini-project					
Keywor	ds			character, stor	yboar	k					
Starter/	Introd	duction activit	ty								
Time		Start by rem	inding	students about	the m	ini project and ensure	all				
5		students hav	/e com	pleted a design	sketcl	n for the terrain and ob	jects.				
minutes	5	(Activity 5).									
Main											
Time		Explain that	the mi	ni-project game	e will n	eed a character to colle	ect				
35 minu	utes	the apples o	r pop t	the balloons and	d stude	ents will need to choos	e the				
		character an	d desi g	gn features (eg.	colou	r and size).					
		Activity 6	Activity 6								
		Complete activity 6 where students will choose a character for the mini-project game.									
This activity is about making the choice of character colour and size of the chosen character for use in th game. Students should choose just one character, b them to be creative by choosing any size and colou character.					of character along with or use in the mini-proj character, but challeng and colour for the	the ect e					
Give students 10 minutes to co all students have chosen a cha				ninutes to comp nosen a charact	lete th er, col	is activity. Then check to our and size.	that				
		Now students know the concept for the project and have designs for terrain, objects and the character. They can create a storyboard for their mini-project game.									
		Activity 7									
		Complete activity 7 where students will demonstrate understanding of the concept, object terrain and character design by creating a storyboard.									

	This activity is about sketching (drawing) a design and adding comments to show what will happen at the beginning, middle and end of the game. This is another chance for students to demonstrate creative skills, they may also add colour to the design. Give students 25 minutes to complete this activity. Once complete check the storyboard matches their chosen game concept. See sample answer below:					
		Start	Middle	End		
S c a		etch of terrain, aracter and jects (with either oles or balloons).	Sketch of terrain, (character has collected some apples or popped some balloons)	Sketch of terrain, character and objects (apples have been collected or balloons have been popped)		
	Game starts character appears (with apples or balloons)		Character has started to either (collect apples or pop balloons)	Game is won when character has either (collected 5 or 10 apples / popped 5 or 10 balloons)		
Plenary	-					
Time 5 minutes	Sum voca	abulary used throug	pping the learning ob ghout.	jective and the key		
Assessment focus		Students should have created a character design for the mini project then, using the information from the concept, terrain design and character design create a storyboard for the mini- project game.				
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	3	Week number	7		
Unit		Date		Time		Page number			
3		WC: 14/10)/18	45 minutes	S	102-104			
Equipme	ent re	equired:		Learning objec	<u>tives</u>				
student	booł	< C		3.3 Construct a	desig	n for the mini-project	C		
Microco	ti ft Ko	du		game. 2.4 Croato a mi	ini an	no for the project has	ad on		
IVIICIOSO	πο	uu		the design.	m-gai	ne for the project bas	eu on		
Keyword	ds			step-by-step ir	struct	ions (pseudocode			
				algorithm), obj	ects, t	errain			
Starter/I	ntro	duction activi [.]	ty						
Time		Start by rem	inding	students about t	the mi	ni project and ensure	all		
5		students hav	/e com	oleted a storybo	ard fo	r the mini-project gar	ne.		
minutes		(Activity 7).							
Main									
Time		Explain that	we hav	e now designed	the te	rrain, objects and			
35 minu	tes	characters to complete graphical design.							
		Introduce th	e idea	of logical design to plan how software or games					
		will work. Th	is can b	be done with step-by-step instructions					
		(pseudocod	e algori	prithm) or with a flow chart.					
		Activity 8							
		Complete activity 8 where students will create the logical design for							
		the mini-project game.							
		This activity	is abou	t filling in the bl	anks t	o create the step-by-s	step		
		instructions	(pseud	ocode algorithm	i) for t	he mini-project game	. This		
		should also	test the	students under	standi	ng of rules using Whe	en and		
		Do comman	ds. Give	e students 10 mi	nutes	to complete this activ	/ity.		
		Once compl	ete go	through the answers to explain how the game will					
		work. See ar	nswers l	pelow:					
		Step I	nstructi	on					
		1 S	Start Ga	me					
		2	Vhen th	ne arrow keys ar	e pres	sed, Do move charact	er.		
		V 2	Vhen th	ne character tou	ches (l	oumps) an apple/ballo	oon,		
		³ Do eat it/pop it.							

4	When the character eats an apple/pops the balloon, Do add 1 to score.					
5	When the score equals 5/10, Do show winner message					
6 End Game						
Now students should know the concept for the project game ar have designs for the logic, terrain, character and objects. This m the planning and design for the mini-project game is complete, they can begin to create (develop) the mini-project game. Prompt students to open a new world in Kodu to complete Acti to create the objects and terrain for the game. Make sure stude						
save their I Mini Proje	Kodu world using appropriate file naming eg. "Tom Smith ct".					
Activity 9						
Complete . for the mir	Activity 9 where students will create the terrain and objects ni-project game in Kodu.					
This activity is about creating the objects and terrain for the game using the information from the designs. This is another chance for students to demonstrate creative skills, they may also add colour to the design. Give students 25 minutes to complete this activity and offer extra help and support to students where required. The terrain and objects should match the students concept and design. Some examples of terrain for the mini project are included below:						
Example 1	- Apple Collector					
Cundarje)	Apple Concetor					

	Exar	nple 2 – Balloon Popper						
	 Dreg Orbit Serol Tab Fine F4 Cente 	Drag Terrafn Ordfit Gamere Seroll Wheel Zoem Terrafn Seroll Wheel Zoem Teol Which Wast Gharacter Seroll wheel Zoem Teol Wheel Teol Wheel Zoem Teol Wheel Zoem Teo						
	ථ මහේත(යි							
	Mak	te sure students save their Kodu world using appropriate file						
	nam	ning, e.g. "Tom Smith Mini Project".						
Plenary		<u> </u>						
Time	Sum	imarise lesson, recapping the learning objective and the key						
5	VOCa	abulary used throughout.						
minutes								
Assessment		Students should have created a logical design for the mini-						
focus		project game and developed the objects and terrain for the game in Kodu.						
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>						
		The access code is: CdScISPHcUaRPaZSe_9tHg						

Grade	6	Subject	DT	Lesson number	1	Week number	8	
Unit	t	Date		Time Page number				
3		WC: 21/10	/18	45 minute	es	105-110		
Equipm	ent r	equired:		Learning obje	<u>ctives</u>			
student	bool	<		3.4 Create a m	ini-gar	ne for the project bas	ed on	
comput	er			the design.				
Microso	oft Ko	du						
Keywor	ds			character, pro	gramm	ing, rows, tiles		
Starter/	Intro	duction activit	y					
Time		Start by pror	npting	students to ope	en the	world they started for	⁻ the	
10		task sheet in	the pr	evious lesson. T	heir wo	orlds should have sen	sible	
minutes	5	names, e.g. "	Tom S	mith Mini Proje	ct". Che	eck that students have	9	
		created the r	equire	d terrain and ob	ojects i	n the previous lesson		
		(Activity 9), y	ou ma	y allow a little e	xtra tin	ne for this if required.		
Main								
Time		Activity 10						
30 minu	utes							
		Complete Ac	tivity 1	0 where studen	ts will	add the character for	the	
		mini-project	game.					
		This activity i	is abou	t adding the ch	aracter	to the mini-project g	jame	
		using the inf	ormati	on from the design to set the size and colour of				
		the character	r. Give	students 10 minutes to complete this activity and				
		offer extra he	elp anc	support to stu	dents v	where required. The		
		character sho	ould m	atch the studen	ts char	acter design.		
		Once comple	ete stu	dents have com	pleted	the graphical develop	oment	
		of the mini-p	project	game by creating terrain, objects and a character.				
		Students sho	ould no	w move onto tł	ne prog	gramming for the min	i-	
		project game	9.					
		Basic progra	mming	g step by step				
		Students sho instructions to students 20 and support achieve this s advanced pro instructions	ould no to prog minute to stuc should ogrami	w follow the ba ram the charac s to complete t lents where req be encouraged ming by followin	sic pro ter to r his acti uired. I to hel ng the	gramming step-by-st nove and jump. Give vity and offer extra he More-able students w p others or start the bumping step-by-ste	ep ≥lp ≀ho p	

	The belo	<complex-block></complex-block>				
	Rem alrea	nind students to save their mini project game. The file should ady have an appropriate name, e.g. "Tom Smith Mini Project".				
Plenary						
Time 5 minutes	Fime Summarise lesson, recapping the learning objective and the key 5 vocabulary used throughout. minutes Summarise lesson, recapping the learning objective and the key					
Assessment focus		Students should have added the character to the mini-project game in Kodu, they should also have programmed the character to move and jump.				
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	2	Week number	8	
Unit	t	Date		Time		Page number		
3		WC: 21/10,	/18	45 minutes	S	107-119		
Equipm	ent re	equired:		Learning object	<u>tives</u>			
student	book	(3.4 Create a m	ini-ga	me for the project bas	sed on	
comput	er			the design.				
Microsc	oft Ko	du						
Keywor	ds			character, prog	gramm	ning, bump, scoring, w	/inning	
Starter/	Intro	duction activity	/					
Time		Start by prom	npting	students to ope	en the	world they started for	r the	
10		task sheet in	the pr	evious lesson. Th	neir w	orlds should have sen	sible	
minutes	5	names, e.g. "	Tom Si	nith Mini Project". Students should have added				
		the character	and p	rogrammed movement and jumping in the				
		previous less	on (Ac	tivity 10 and Bas	sic pro	gramming step-by-st	ep)	
		you may allo	w a litt	le extra time for this if required.				
Main		[
Time		_						
30 minu	utes	Bumping ste	p-by-s	tep / Scoring an	d win	ning step-by-step		
		Bumping step-by-step / Scoring and winning step-by-step Students should now complete the advanced programming by following the step-by-step instructions for bumping then for scorin and winning. Give students 20 minutes to complete these activities and offer extra help and support to students where required. More- able students who achieve this should be encouraged to help other The tiles required to program bumping, scoring and winning are included below:						

Example 1 Apple Co	ollector	- a ×	
Image: Construction of the second of the	Import and a state of the s	Kodu	
Example 2 Balloon I	Popper		
1 No 1	Image: Series of the series of th	- a x kodu	
Remind students to	save their mini-proj	ject game. The file	should
already have an app	propriate name, e.g.	"Iom Smith Mini P	roject".
Activity 11 / Activity	/ 12		
Complete Activity 1 programming for th	1 and Activity 12 to he mini-project game	check understandi e at the end of the	ng of the lesson.
These activities are bumping (interactin after bumping. Onc below;	about putting Kodu g with an object) ar e complete, go thro	tiles in order to prond tincreasing the ga augh the answers. S	ogram ame score ee answers
Activity 11	Ι		
When bumped	Apple	Do eat	

	Act	ivity 12						
		When	Balloon	Do score	Red	01 Point		
		oumped						
Plenary								
Time	Summarise lesson, recapping the learning objective and the key							
5	voca	abulary used	d throughout.					
minutes								
Assessment		Students should have bumping, scoring and winning in the						
<u>focus</u>		mini-project game and arranged tiles in the activities to show						
		an understanding of the programming they used.						
Learning Cur	ve	PD training sessions with information on the theory of games						
		development and practical instructions to use Microsoft Kodu						
		will be available on learning Curve via this link:						
		https://bit.ly/2m3sDOm						
		The access code is: CdScISPHcUaRPaZSe_9tHg						

Grade	6	Subject	DT	Lesson number	3	Week number	8	
Uni	t	Date		Time	Time Page number			
3		WC: 21/10)/18	45 minute	es	120-124		
Equipm	ent re	equired:		Learning obje	<u>ctives</u>			
student	bool	K		3.1 Define rule	es, con	ditions and actions in	Kudo.	
comput	er			3.2 Apply know	wledge	e to use rules, conditic	ons	
Microso	oft Ko	du		and actions in	Kodu.			
Keywor	ds			testing, evalua	tion			
Starter/	Intro	duction activit	.y					
Time		Start by expl	aining	the importance	of tes	ting software and gan	nes	
5		both during	and aft	er they have be	en cre	ated (developed).		
minutes	5							
		Prompt students to open the world they created for the mini-p						
		game in the previous lessons. Their worlds should have sensible						
	names, e.g. "Tom Smith Mini Project".							
Main								
Time		Activity 13						
35 minu	utes							
		Complete A	ctivity 1	3 to test the m	ini-pro	ject game against the		
		requirement	S.					
		The activity i	s abou	t using the min	i-proje	ct game in play mode	to	
		answer the c	uestio	ns in the test ta	ble. Th	e students must simp	ly tick	
		[v] in either	the Yes	s or No column	to reco	ord if the game passes	s or	
		time permits	ST. GIVE	e students 15 m	inutes adu in	to complete this activ	ity. It	
		time permits	i studer	Noments where	thoir c	to east mode to make	; Thoro	
		is an opport	i impro unity te	vements where		Jame nas falleu a lest.	mere	
		nroioct gam		ad	up on	now many tests their		
		project gam	es pass	eu.				
		Move onto /	Activity	14 to briefly ev	مادياد	the project and their	own	
		nerformance	it's im	na to briefly ev	te loor	n from the experience	00011	
		periormanee	., 103 111			in nom the experience	•	
		Activity 14						
		Complete Ad	ctivitv 1	4 to evaluate th	ne min	i project game and the	е	
		students ow	n perfo	prmance during the project.				
			1 0	--	- 1	5		
		The activity i	s abou	t identifying a g	jood fe	eature of the game, a	bad	
		reature of th	e game	e and a possible	<u>imp</u> ro	overnent. Students sho	Jula	

also consider their own performan differently in future projects. One s sufficient.	ce and what they may do sentence for each question will be					
Give students 10 minutes to complete this activity then move onto the next. Some answer suggestions below:						
1. Explain a good feature of your mini-project game?	(Any feature with explanation/justification) Explain how the game has passed a test.					
2. Explain a bad feature of your mini-project game?	(Any feature with explanation/justification.) E.g. Explain if the game has failed a test and why.					
3. Explain a change/improvement you could make to your mini- project game?	(Any change/improvement with explanation/justification) E.g. any change(s) required, so the game passes all tests above or more apples/balloons to increase game complexity or more levels to increase game					
4. What could you change/improve about your performance in the future?	duration. (Any improvement with explanation/justification), E.g. Improve drawing skills to make better design or improved programming skills to make better games.					
Move on from the evaluation and Unit 3 pop quiz	complete the Unit 3 pop quiz.					
Briefly recap the key points from Unit 3 then direct students to complete the Unit 3 pop quiz and evaluation on pages 123-124 the student book. See answers for marking below:						
Question 1	A. Using conditions and actions					

Qu		estion 2	C. When and Do tiles			
	Qu	estion 3	B. Drawing/Sketching			
	Qu	estion 4	A. Step-by-step instructions			
	Qu	estion 5	B. Testing and debugging			
Plenary						
Time Summarise lesson, recapping the learning objective and the ke			earning objective and the key			
5	vocabulary used throughout.					
minutes						
Assessment		Students should have tested and evaluated the mini-project				
<u>focus</u>		game and their own performance. They should also have				
		completed the Unit 3 pop quiz using prior knowledge.				
Learning Curve		PD training sessions with information on the theory of games				
		will be available on learning Curve via this link:				
		https://bit.ly/2m3sDOm				
		The access code is: CdScISPHcUaRPaZSe_9tHg				

Grade	6	Subject	DT	Lesson number	1	Week number	9		
Uni	t	Date		Time	Time Page number				
4		WC: 28/10)/18	45 minute	S	128-134			
Equipm	ent re	equired:		Learning object	<u>ctives</u>				
student	book	< compared with the second sec		4.1 Define rep	etition	and how it is used in	Kodu.		
Keywor	ds			programming repetition	struct	ures, sequence, select	ion,		
Starter/	Introd	duction activit	ty						
Time		Start by goir	ng thro	ough the Unit 4	overvi	ew, keywords and lea	rning		
10		outcomes fo	or the u	init. Introduce p	rograr	nming structures usir	ng the		
minutes	5	information	on pag	ges 130-131 of t	the stu	dent book.			
Main									
Time 30 minu	ıtes	Activity 1 Complete Activity 1 to assess student understanding of programming structures.							
		The activity is about matching the programming structures with the description. This activity can be discussed in pairs or small groups. Give students 10 minutes to complete this activity. Once complete go through the answers. See answers below:							
		Sequence			Com orde	mands are done once r.	e in		
		Selection			Com times	mands are repeated s s.	several		
		Repetition			Logic comi	: is used to decide wł mands to do.	nich		
		Opportunity for class discussion about which structure would be used for each task before students move on to complete Activity 2. Activity 2 Complete Activity 2 to apply knowledge about programming structures to game related tasks.							
		The activity game relate	is abou d tasks	It matching the This activity ca	progra an be	amming structures wi discussed in pairs or s	th the small		

	grou com	groups. Give students 10 minutes to complete this activity. Once complete go through the answers. See answers below:						
	See	quence	Showing a "Go" message when a game starts					
	Sel	ection	Deciding if the player has won or lost the game					
	Re	petition	Showing a count down from 10 to 1 in a game					
	Μον	ve on to explain how repetitior	n works in Microsoft Kodu.					
	Activity 3							
	Con	Complete Activity 3 to learn the key terms for repetition .						
	The (nar activ	The activity is about unscrambling the words to identify 3 terms (names) for repetition. Give students 10 minutes to complete this activity. Once complete go through the answers. See answers below:						
	Itepntroei repetition							
		Otairteni	iteration					
		Pgoioln	looping					
Plenary								
Time 5 minutes	Summarise lesson, recapping the learning objective and the key vocabulary used throughout.							
Assessment focus		Students should understand programming structures and how they could be used for game related tasks. Students should also know the 3 names used for repetition.						
<u>Learning Curve</u>		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>						
		The access code is: CdScISPHcUaRPaZSe_9tHg						

Grade	6	Subject	DT	Lesson number	2	Week number	9
Unit	t	Date		Time		Page numbe	r
4		WC: 28/10,	/18	45 minute	es	134-141	
Equipm	nent i	required:		Learning obje	<u>ctives</u>		
student	t boo	k		4.2 Understar	d testi	ng and debugging	
				methods.			
				4.3 Apply kno	wledge	e to test and debug	а
	•			series of smal	l progr	ams.	<u> </u>
Keywor	ds			testing, logica	l error,	syntax error, debug	jging
Starter/	/Intro	duction activity	• •				
lime		Start by introd	ucing te	esting, logical e	rrors a	nd syntax errors usi	ng the
5	_	information or	n pages	134-135 of the	studer	nt book.	
minutes	S						
		A otivita (A					
25 min	utoc	ACTIVITY 4					
35 minu	utes	Complete Activ	vity 1 to	accoss studen	tundar	estanding of logical	and
		support of the sector	vity 4 to		t under	standing of logica	anu
		syntax enois.					
		The activity is a	about ic	lentifying the t	une of	error in 3 evamples	of
		dames program	nmed v	with Kodu tiles	This ac	tivity can be discuss	sed in
		pairs or small (aroups	Give students '	15 mini	ites to complete th	is
		activity. Once o	complet	e, go through t	the ans	wers. See answers b	below:
		Game 1		Syntax erro	r	missing tile	for
						arrow keys	
						should be n	ext to
						the keyboar	d tile
		Game 2		Syntax error		The missing tile	
						for 01 point	
						should be n	ext to
						the red scor	e tile
		Game 3		Logic error		The eat tile i	S
						being used,	
						should be us	sing a
						boom tile.	
		Remind studer onto Activity 5	nts that	all testing is ab	out ide	entifying errors and	move

Activity 5

Complete Activity 5 to identify different **types** of **testing**.

The activity is about finding the names of 5 types of testing from the grid. This activity can be done in pairs or small groups. Give students 5 minutes to complete this activity. Once complete go through the answers. See answers below:

Alpha	
Beta	
Whitebox	
Blackbox	
Acceptance	

Introduce **debugging** and emphasise how **testing** and **debugging** is used to **remove errors** from games and software using the information on page 138 of the student book. Move onto Activity 6.

Activity 6

Complete Activity 6 to assess students understanding of **errors** and ability to **debug** Kodu games (programs).

The activity is about identifying errors in 3 examples of games programmed with Kodu. Then debugging by rewriting the programs in the student book with the correct tiles. This activity can be discussed in pairs or small groups. Give students 15 minutes to complete this activity. Once complete, go through the answers. See answers below:

Error:	The characte	er is using	WASD to	move,
	but they sho	Duid de Usi	ng arrow	'S.
Debugged tiles:	keyboard	arrows	move	slowly

	Error:		The character is using boom, but they should be using eat.				
	Debug tiles:	ged	bump	ed	apple	Eat	
	Game	3					
	Error: Debugged tiles:		The score is using 10 points, but it should be using 01 point.				
			Debugged iles: bumped I		boom		
			bumped	balloon	score	Red	01 point
Plenary							
Time	Summa	rise le	sson, recap	ping the le	earning obje	ctive and the ke	y
5	vocabu	lary us	sed through	nout.			
minutes		1					
Assessment focus Stud type deb			Students should understand testing and be able to identify types of error. Students should also be able to test and debug Kodu tiles.				
Learning Curve PD t gam Mict link:			raining sess es developr osoft Kodu <u>https://bit.ly</u> access code	ions with i ment and p will be ava y/2m3sDC e is: CdScl	nformation practical inst ailable on lea m SPHcUaRPa2	on the theory of ructions to use arning Curve via ZSe 9tHa	f this

Grade	6	Subject	DT	Lesson number	3	Week number	9	
Unit		Date		Time		Page number		
4 WC: 28/10/18			45 minute	45 minutes 141-146				
Equipm	ent r	equired:		Learning obje	<u>ctives</u>			
student	boo	k		4.2 Understan	d testi	ng and debugging		
comput	er			methods.				
Microso	oft Ko	odu		4.3 Apply kno	wledge	e to test and debug a		
				series of smal	l progr	ams.		
				4.4 Understan	d the f	eatures of the Rover		
				character.				
Keywor	ds			testing, logica	l error,	syntax error, debugg	ing,	
Starter/	Intro	duction activity		Rover reature.	5			
Time		Remind studer	nts abou	ut testing and c	lebuaa	ing, then explain /		
5		challenge then	n to pro	aram. test and	debua	a game in Kodu.		
minutes	5	g		g,		<u>-</u>		
Main	-							
Time		Program, test a	and deb	ug a game ste	p by st	ер		
35 minu	utes	-				•		
		Have students	follow t	he step-by-ste	p instru	uctions on pages 141-	-143	
		in the student	book to	program a ga	me in k	Kodu. Once programm	ned	
		students shoul	d test tl	he game in Koo	lu to tr	y to identify the error	S,	
		then debug by	correct	ing the progra	mming	tiles.		
		Offer extra hel	p and si	upport to stude	ents wh	ere required. Give		
		students 25 mi	nutes to	o complete this	activit	y. Once complete go		
		through the ar	iswers. S	See answers be	low:			
			1. Sh	ot hit is using s	sub, bu	t it should be using		
		Frrors (bugs)	push	pad.				
			2. Sc	ored is using g	reen, b	ut it should be using	red.	
		Dobuggod file	for the					
		Debugged tiles for the program below:						

	Codo Game Lab (142164 Add/Ghang Delate Tile Inter Add/Gha Inter	 Add/Adange Uis Add/Adange Uis							
	Move o informa based o charact	on and introduce the Mars (ation in the student book, e on the actual Mars Curiosity er and features in Kodu. M	Curiosity Rover using the emphasise that the character is y Rover. Introduce the Rover ove on to Activity 7.						
	Activity Comple	7 ete Activity 7 to assess stud	ent understanding of the Rover						
	The act Rover c groups. comple	ivity is about matching the haracters features. This act Give students 10 minutes te go through the answers	names with descriptions of the ivity can be done in pairs or small to complete this activity. Once . See answers below:						
	beam		This feature allows the Rover to						
	scan		This feature identifies rocks using x-ray.						
	inspec	t	This feature uses a drill to gather rock samples.						
	picture	9	This feature allows the Rover to use a camera.						
Plenary									
Time 5 minutes	learning objective and the key								
Assessment	focus	Students should understa debug a game in Kodu. S identify the features of th	and testing and be able to test and tudents should also be able to e Rover character.						

Learning Curve	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>
	The access code is: CdScISPHcUaRPaZSe_9tHg

Grade	6	Subject	DT	Lesson number	1	Week number	12		
Unit		Date		Time		Page	number		
4		WC: 04/1	1/18	45 minute	es	147	7-159		
Equipm	nent	t required:		Learning ob	<u>jectiv</u>	<u>es</u>			
studen	t bc	ook		4.4 Understa	and tl	he features of the	Rover character.		
compu	ter								
Microsoft Kodu									
Keywords Rover features, beam, scan, picture									
Starter/Introduction activity									
Time		Remind stu	dents a	bout the Rov	er ch	aracter and expla	in that we will		
10		now learn h	ow to u	use some of t	he ch	naracter features i	in Kodu. The scan		
minute	S	and picture	feature	es could be sl	nown	with a class dem	onstration.		
Main									
Time		Using the s	can fea	ture step by s	step /	' Using the picture	e feature step by		
30		step							
minute	s								
		the student to use the step-by-step instructions on pages 147-139 of the student book to program the Rover scan and Rover picture features . Offer extra help and support to students where required. More-able students who achieve this should be encouraged to help others. Give students 30 minutes to complete these activities.							
		Remind students to save their work as they may want to refer back to it later. The files should have appropriate names, e.g. "Tom Smith Scan Feature" and "Tom Smith Picture Feature"							
		The tiles required to program the scan and picture features are included below:							



Grade	6	Subject	DT	Lesson number	2	Week number	12	
Unit		Date		Time	Time Page number			
4		WC: 04/11/	/18	45 minutes	5	160-166		
Equipm	ent	required:		Learning object	<u>tives</u>			
student	bo	ok		4.4 Understand	l the f	eatures of the Rove	er	
comput	ter			character.				
Microso	oft k	Kodu						
Keywor	ds			Rover features,	bean	n, scan, picture		
Starter/	'Intr	oduction activity	/					
Time		Start by introdu	ucing the	e Unit 4 task she	et on	pages 160-166 of t	he	
5		student book. N	Make it o	clear the evaluat	ion or	n pages 165-166 wi	ll be	
minute	S	completed by the teacher. Explain that students may refer to the						
		previous work a	as the b	eam feature in th	ne tas	k sheet works in a s	imilar	
N4 1		way to the Rove	er scan a	and picture featu	ires.			
		Linit 4 to de obje	- 4					
11me		Unit 4 task snee	et					
minute	5	Students will be it is important t and experience one lesson.	e expect they are with Ko	ed to complete clear about wha odu, students sho	the ta it is ex ould c	sk sheet independe pected. Given their omplete the task sł	ently, so skills neet in	
		Facilitate the st	udents v	work and offer h	elp if	any technical issues	s arise.	
Make sure students save their work using a sensible file name, e.g. "Tom Smith Unit 4 Task Sheet". Teacher evaluations can be comp by reviewing the work produced. Teachers must complete the task sheet evaluation on pages 165- the student book. This can be done by reviewing the worlds creat each student either during or after the lesson.						.g. pleted		
						ation on pages 165 ving the worlds crea 1.	s 165-166 of s created by	
		The example below meets all terrain, character and object requirements for the task sheet:						



Grade	6	Subject	DT	Lesson number	3	Week number	12
Unit	t	Date		Time		Page numbe	r
4/5		WC: 04/11,	/18	45 minut	es	167-190	
Equipm	ent r	equired:		Learning obj	<u>ectives</u>		
student	boo	k		4.1 Define re	petition	and how it is used	in
comput	ter			Kodu.			
Microso	oft Ko	odu		4.2 Understa	nd testi	ng and debugging	
				methods.			
				4.3 Apply kno	owledge 	e to test and debug	а
				series of sma	II progr	ams.	
				4.4 Understa	nd the f	eatures of the Rove	r
	مام			character.		h	
Keywor	as			enemy chara	cter, att	ack, movement, hit	points
	Intro	duction activity					
10		Start by briefly	racapp	ing the key pe	into fro	m Unit 1 than direct	F
minutor	-	students to co	moloto	the Unit 4 qui-		11011114 then direct	tudont
minutes	5	students to complete the Unit 4 quiz on pages 167-168 in the studer					
		DOOK.					
		See answers fo	or marki	na below:			
		Question 1			Sequen	ce, selection, repetit	tion
		Question 2		false, Kodu uses repetition on al			on all
				tiles (commands)			
		Question 3		Testing			
		Question 4		Debugging			
		Question 5		Scan, beam			
Main							
Time		Move on and g	go throu	ugh the Unit 5	overvie	w, keywords and lea	arning
30 minu	utes	outcomes for t	he unit				
		Introduce ener	ny char	acter moveme	nt, atta	ck and hit points. Th	nis
		could be done	with a	class demonst	ration tl	hen move on to the	step-
		by-step guides	5.				
					atom / I		a al c
		step by step /	Show h	it points step by	by step	chemy character atta	ack
		Direct students	s follow	the step-by-s	tep inst	ructions on pages 1	74-
		189 to program enemy character movement, attack and showing					

	Rover h the sam	Rover hit points. These 3 step-by-step guides should be done using the same world in Kodu.								
	Offer ex student	Offer extra help and support to students where required. Give students 25 minutes to complete this activity.								
	Activity	Activity 1 / Activity 2 / Activity 3								
	Comple underst out of h	Complete Activity 1, Activity 2 and Activity 3 to assess student understanding of enemy movement, attack and when characters run out of hit points.								
	These activities are about using Kodu tiles to program enemy movement, enemy attack and ending the game when no health points remain. Once complete go through the answers. See answers below:									
	Activit	y 1	1	I						
	Whe	n always	Do move wander		slowly					
	Activit	y 2	1							
	Wh	en see	rover Do shoot		it					
	Activit	y 3		I	I					
	When health equals 00 points Do er									
Plenary										
Time	Summa	rise lesson,	recapping the le	earning object	ive and the key					
o minutes	VOCADU	ary used tr	noughout.							
Assessment	<u>focus</u>	Students should have programmed enemy movement, attack and show hit pints in Kodu and arranged tiles in the activities to show an understanding of the programming they used.								
<u>Learning Cu</u>	<u>rve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>								

The access code is: CdScISPHcUaRPaZSe_9tHg

Grade	6	Subject	DT	Lesson number	1	Week number	13
Unit		Date		Time		Page numb	er
5		WC: 11/11	/18	45 minute	es	191-196	
Equipm	ent r	equired:		Learning obje	<u>ctives</u>		
student	boo	k		5.1 Identify th	e requ	irements for the fin	al
				project game.			
Keywor	ds			project brief			
Starter/	Intro	duction activity	/				
lime		Start by introc	lucing th	ne Unit 5 projec	t stage	es and marking on	pages
10		191-219 of the	e studen	t book. Make i	t clear t	the evaluation on p	ages
minutes	5	217-219 Will b	e compl	eted by the tea	acher. S	tudents will be exp	ected
		to complete ti	he projec	ct independent	iy, so ii	is important they	are
Main		clear about wi	Tat is exp	Jecled.			
Time							
30 mini	ites	Activity 4					
		, .e., ., .					
		Complete acti	vity 4 to	develop under	standir	ng of the Unit 5 pro	oject.
		This activity is about students working in pairs or groups, discussing what the project is about and what is required. Pose some questions "what is the project about?" and "what do you need to do to complete the project?" Give students 10 minutes to complete this activity. Once complete teacher may discuss student ideas with the group.					
		Activity 5					
		Complete Act	ivity 5 to	produce the a	ssessed	d project brief .	
		This activity is by explaining students 10 m	about st what the inutes to	students showing understanding of the project bey have been asked to do for upto 3 marks. Give to complete this activity.			
		Once complete teacher must mark the project brief using the mark criteria below:					narking

	Marking criteria:							
	1 mark	1 mark for using keywords 'terrain' and 'objects'						
	1 mark	c for using keywords 'Rover' and 'rocks'						
	1 mark	c for using keywords 'win' and 'investigating'						
	1 mark	c for explaining that they will use systems development						
	lifecyc	le to create a Mars Rover game						
	1 mark	c for explaining the advanced features						
	Maxim	um of 3 marks. Use professional judgement.						
Plenary	Plenary							
Time	Summa	rise lesson, recapping the learning objective and the key						
5	vocabul	ary used throughout.						
minutes								
Assessment	focus	Students should have developed an understanding of Unit						
		and completed the Unit 5 project brief.						
Learning Cu	<u>rve</u>	PD training sessions with information on the theory of games						
		development and practical instructions to use Microsoft						
		Kodu will be available on learning Curve via this link:						
		https://bit.ly/2m3sDOm						
		The access code is: CdScISPHcUaRPaZSe_9tHg						

Grade	6	Subject	DT	Lesson number	2	Week number	13
Unit		Date		Time		Page numb	er
5		WC: 11/11,	/18	45 minute	s	197-198	
Equipme	nt red	quired:		Learning object	<u>ctives</u>		
student k	book			5.2 Apply skills design for the meet all requi	s and final _l remen	knowledge to cons project game that v its.	struct a will
Keyword	s			object and ter	rain p	lan	
Starter/Ir	ntrod	uction activity			- 1-	-	
Time 5 minutes		Remind stude already attem Remember stu project tasks in	nts abo oted the idents v ndepen	ut the Unit 5 pr e project brief (will be expectec dently.	oject activit I to cc	and make sure the y 5). omplete the assess	y have ed
Main							
Time 35 minut	es	Now that stud project brief th required. Activity 6 Complete Acti required for th This activity is shows the qua can work in pa to complete th See answers b Image 1 Image 2 Image 2 Image 3 Image 4 Image 5 Image 6 Image 7	ents kn ney nee vity 6 to ne proje about n nis activ elow:	ow about the p d to move onto o introduce the ect. matching object f each object re- omplete this ac rity. Once comp Cu SI Ig Re Pu H Se	object object object ts and quirect tivity. lete g rater t outnik neous over c ushpa ill terr edime	and have created objects and charact objects and characters with images. This d in the project. Stu Give students 5 m o through the answ errain character s rock haracter d character ain ntary rock	a :ers also idents inutes wers.
	Activity Comple design This act includir for upto student	Eivity 7 mplete Activity 7 to produce the assessed sketched terrain sign including objects and characters. s activity is about drawing a design for the project game luding the objects, terrain and characters from the Unit 6 plan upto 3 marks. Students may add colour to the designs. Give dents 20 minutes to complete this activity.					
----------------	---	--	--	--	--	--	--
	The de 1 rove igneou (minin Teache the ev compl	design should have all elements from the plan; ver character, 1 pushpad character, 1 sputnik character, 5 ous rocks, 5 sedimentary rocks, 1 hill (minimum), 2 craters imum). ther must award a mark for terrain design using the criteria in evaluation after Activity 9's logical design has also been					
Plenary							
Time	Summa	rise lesson, recapping the learning objective and the key					
5	vocabu	lary used throughout.					
minutes							
Assessment fo	<u>ocus</u>	Students should have identified the terrain, objects and characters for the project and completed the sketched terrain design.					
Learning Curve		PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u> The access code is: CdScISPHcUaRPaZSe 9tHg					

Grade	6	Subject	DT	Lesson numbei	-	3	Wee	k number	13
Unit		Date	Time Page number			r			
5		WC: 11/11/	18	45 mi	45 minutes 199-200				
Equipm	ent r	equired:		Learning of	obje	<u>ctives</u>			
student	boo	k		5.2 Apply skills and knowledge to construct					
				a design f	or tl	he fina	l projec	t game that	: will
				meet all re	equi	remen	its.		
Keywor	ds			storyboar	d, lo	gical c	design		
Starter/	Intro	duction activity							
Time		Remind students	about	the Unit 5 p	oroje	ect and	d make	sure they ha	ave
5		attempted the sk	etched	design (act	ivity	7).			
minutes	5								
		Remember stude	ents will	be expecte	ed to	o comp	plete th	e assessed	
	project tasks independently.								
Main									
Time		Now that studen	ts know	about the	nro	iect an	nd have	created a te	errain
35 mini	ites	they need to mo	ve onto	the storvb	oarc				, mann,
		Activity 8							
		Complete Activit	y 8 to p	roduce a s t	oryl	board	for the	project.	
		This activity is about making a storyboard showing the start, middle and end of the project game. Teacher could discuss the requirements for the storyboard with the class before they attempt this activity. Give students 10 minutes to complete this activity. Once complete go through the answers. See suggested answers below:							
		1. Start	2. Mic	dle	3. I	Middle	•	4. End	
		Image matching description	Image match descr	e ning iption	lma ma des	age Itching scriptic	l on	Image matching descriptior	1

Description:	Description:	Description:	Description:	
Countdown, then game starts	Rover beams rocks and avoids enemy character	Rover inspects rocks and avoids enemy character	When the score is 10 the rover must bump satellite	
(or any appropriate description)	(or any appropriate	(or any appropriate	to win the game (or any	
	description)	description)	appropriate description)	

Activity 9

Complete Activity 9 to produce the assessed **logical design** for the project.

This activity is about planning the logical **when** and **do commands** for the project game; upto 3 marks. Students may refer back to the logical design for the mini project in Unit 3 whilst completing this task. Give students 20 minutes to complete this activity. See teacher answers for marking:

Start game	
When arrow keys are pressed	Do move Rover character
When mouse left click	Do Rover jump
When Rover touches (bumps) igneous rock	Do beam rock
When beamed rock	Do add 1 to score
When Rover touches (bumps) sedimentary rock	Do inspect rock
When inspected rock	Do add 1 to score
When pushpad sees Rover	Do shoot Rover
When Rover health = 0	Do game over
When score = 10 and rover touches (bumps) Sputnik	Do win game

	End game					
	Teacher must now award a total mark for terrain design and logical design using the criteria in the teacher evaluation.					
Plenary						
Time	Summarise	e lesson, recapping the learning objec	ctive and the key			
5	vocabulary	used throughout.				
minutes						
Assessment	<u>focus</u>	Students should have created a storyboard for the project				
		and completed the logical design.				
Learning Cu	rve	PD training sessions with information on the theory of				
		games development and practical instructions to use				
		Microsoft Kodu will be available on learning Curve via this				
		link: https://bit.ly/2m3sDOm				
		The access code is: CdScISPHcUaRP	PaZSe_9tHg			

Grade	6	Subject	DT	Lesson number	1	Week number	14		
Unit		Date		Time		Page numbe	er		
5		WC: 18/11/	18	45 minutes 201-207					
Equipm	ent	: required:		Learning obje	<u>ctives</u>				
student	bo	ok		5.3 Demonstra	ate pro	ogramming skills to)		
computer				create the fina	al proje	ect game based on	the		
Microso	oft I	Kodu		design.					
Keywor	ds			terrain, object	s, prog	gramming			
Starter/	'lnt i	roduction activity							
Time 5 minutes	5	Remind students about the Unit 5 project and make sure they have attempted the logical design (Activity 9). Remember students will be expected to complete the assessed provide tasks independently.					ve roject		
Main									
Time 35 minutes	5	Now that students have completed the project designs, they need to move onto creating the game in Kodu.							
		Start Activity 10 and complete Task 1 - Create terrain and Task 2 - Add objects and characters. This activity is about making graphical features for the project game. Give students 30 minutes to complete this activity. Facilitate the students work and offer help if any technical issues arise. See example work.							
		Below is an example of Mars game terrain including all required objects, characters and terrain features (hill and 2 craters) for Task 1 and Task 2:							

	Kodu Game Lab (1.4.216.0, General)	- 8 ×					
	Add/Select Object Options	ct					
	Find Next Char	artar					
	Toggle Snap to G	rid					
	Center Camera						
	Home Home Menu	and the second se					
	Esc Run						
	Undo(10)	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O					
		· · ·					
	11 and Mar						
		Object Tool: Add or Edit Characters and Objects					
	If time perr	nits students can move onto Task 3 - Basic programming -					
	Rover char	acter					
	Make sure	students save their Kodu world using appropriate file					
	naming, e.o	g. "Tom Smith Mars Rover Project".					
Plenary							
Time	Summarise	lesson, recapping the learning objective and the key					
5	vocabulary	used throughout.					
minutes							
Accessmen	t focus	Students should have created the terrain phiests and					
Assessmer	<u>it locus</u>	Students should have created the terrain, objects and					
		characters for the project in Kodu.					
Learning Curve		PD training sessions with information on the theory of					
		games development and practical instructions to use					
		Microsoft Kodu will be available on learning Companie this					
		ivilcrosoft kodu will be available on learning Curve via this					
		link: <u>https://bit.ly/2m3sDOm</u>					
		The access code is: CdScISPHcLIaPDa7Se OtHa					
		The access code is. Cuscisf i Coarrazse_stag					

Grade	6	Subject	DT	Lesson number	2	Week number	14			
Unit		Date		Time		Page numbe	er			
5	5 WC: 18/11/18			45 minute	es	206-214				
Equipme	uipment required:			Learning object	<u>tives</u>					
student book				5.3 Demonstrat	e progr	amming skills to crea	ite the			
compute	er			final project ga	me base	ed on the design.				
Microso	ft K	odu		terrein objects programming						
Keyword	ls	terrain, objects, programming								
Starter/I	ntro	oduction ac	tivity							
5 minutes		Start by p project in e.g. "Tom Activity 10 Remembe tasks inde	rompting the previo Smith Ma and com r students pendently	students to oper ous lesson. Their ars Rover Project apleted Task 1 ar s will be expecter y.	n the wo worlds ". Stude nd Task 3 d to cor	nts should have sensible nts should have start in the previous less nplete the assessed p	names, ed on. oroject			
Main										
Time 35 minutes		Now that Kodu they Activity 10 Continue character character character. Students r with these Facilitate t The project Sample til reference	students l need to) Activity 10 then mov and finally may refer tasks. Giv the studer t program es (program only:	have created the terrain, objects and characters in move onto programming the project game. 0 and complete Task 3 - Basic programming - Rove /e onto Task 4 - Advanced programming - pushpad y Task 5 - Advanced programming - Sputnik back to previous work and Kodu programs to help ive students 30 minutes to complete this activity. nts work and offer help if any technical issues arise. mming should be finished by the end of this session amming) required for the project below. For teache						



	Sp A keed Entri Tababa Entri Ent	<complex-block><complex-block></complex-block></complex-block>
Plenary		
Time	Su	immarise lesson, recapping the learning objective and the key
5	vo	cabulary used throughout.
minutes		
Assessment	<u>t</u>	Students should have completed the programming for the project
<u>focus</u>		game in Kodu.
<u>Learning</u>		PD training sessions with information on the theory of games
Curve		development and practical instructions to use Microsoft Kodu will be
		available on learning Curve via this link: https://bit.ly/2m3sDOm
		The access code is: CdScISPHcUaRPaZSe_9tHg

Grade	6	Subject	DT	Lesson number	3	Week number	14		
Unit	•	Date		Time Page numbe			r		
5		WC: 18/11/1	8	45 minutes 215-221					
Equipm	ent i	required:		Learning objectives					
student	boo)k		5.4 Test and c	debug	the project game to	C		
comput	er			ensure it worl	ks as e	xpected.			
Microso	oft Ko	odu		5.5 Evaluate t	he pro	ject game against t	he		
				scenario requ	iremer	nts.			
Keywor	ds			testing, debu	gging,	evaluation			
Starter/	Intro	duction activity							
r ime		Start by promptir	ng stua	ents to open tr	ne wor	Id they created for	tne .h		
	_	project, their wor	ias sno	ka cura studan	ole nar to bow	nes, e.g. Tom Smit	n to		
minutes	5	the terrain object	ct . Ivia	set sure studen	ts nave	e allempled to crea	le		
		the terrain, objec	ls, chai	acters and prog	granni	ing lasks.			
		Remember stude	nts will	he expected to	o comr	olete the assessed			
		project tasks inde	-pende	ntlv	o com				
Main									
Time 35 minutes	5	Now that students have created the terrain, objects and characters and programming in Kodu they need to move onto testing and debugging .					ers		
		Activity 11							
		Complete Activity 11 to test and debug the project game.							
		This activity is about testing their games by playing them, then ticking $[]$ or crossing [X] the test boxes and explaining any debugging required for failed tests for upto 5 marks.					icking		
		Teacher must award a mark for programming, testing and debugging using the criteria in the evaluation after Activity 11 has also been completed. This could be done after the lesson.					gging າ		
		Once testing is complete move on to the project evaluation .							
		Activity 12							
		Complete Activity	y 12 to	evaluate the p	roject a	and their performa r	nce.		

	This activit each stage upto 5 ma Marking cr with suitat All assesse be marked Teacher sh teacher ev determine	cy is about commenting on how well they performed at e of the project and how they could have done better for rks. Give students 15 minutes to complete this activity. riteria: Award 1 mark for each evaluation section completed ble comments. Use professional judgement. ed activities are now complete so the student's project can d to calculate the overall score. hould use the teacher answers provided and criteria in the valuation to award marks for each activity in the project to e the student's overall project scores.					
Plenary							
Time 5 minutes	Briefly recap the key points from Unit 5 then direct students to complete the Unit 5 quiz on page 221 in the student book.						
		1	Always				
	Question	2	True				
	Question	3	2. design/refine				
			3. make prototype				
			4. test/evaluate				
	Question	4	Testing and debugging				
	Question	5	No				
<u>Assessment</u>	focus	Students should have completed the testing and					
		evaluation for the project.					
Learning Cu	<u>rve</u>	PD training sessions with information on the theory of games development and practical instructions to use Microsoft Kodu will be available on learning Curve via this link: <u>https://bit.ly/2m3sDOm</u>					
		I The access code is: CdScISPHcUaRPaZSe_9tHg					