## YEAR 4: SPRING 1 – SURVIVORS

## **GEOGRAPHY: PHYSICAL – MOUNTAINS AND VOLCANOES**

UNDERSTAN	ND, DESCR	IBE	AND EXPL	AIN: FORMAT	ION OF	MOUN	<b>FAINS</b>		ES				
Physical	Mountain	Ea	rth's crust	Tectonic Plate	Pla	te boundary	/	Fold mountain	Fault	-block mountain	Volcanic		
Geography:								"			mountain		
the physical	Earth's cor	е	Earth's mantle	Earth's crus	st	Nolten	I	Magma/Lava	Convection	Converg	ging plates		
change/impact	Volcano		Erupt/ion	Active		Dormant		Igneous rock	Mi	nerals	Fertile land		
to land terrain	Re-visit and revise												
over time:	Key concepts: Y3 & 4 Locational knowledge, land changing over time, rocks and soils.												
The formation				Key vocabulary:	hill, mount	ain, land-use	, fertile, m	olten, crust, volcano, ign	eous rock.				
volcances	What are mo	untai	ins and volcano	<u>es?</u> .rm that rises above t	bo currour	ading <b>land</b>							
volcanoes	A mountain is a geological lanaform that rises above the surrounding land. Typically, a mountain will rise at least 1 000 feet above sea level												
Learning	The <i>tallest</i> mountain in the <i>world</i> , Mount <i>Everest</i> in the <i>Himalayas</i> , rises above sea level by <i>29,036 feet (8,848m)</i> .												
links:	Small mountains ( <i>below 1,000 feet</i> ) are usually called <i>hills</i> .												
Geography:													
Earth's crust/										)			
Tectonic plates/	What is the difference between a mountain and a hill?									ſ			
Plate boundaries/													
Fault lines	How are mountains and volcanoes formed?												
	<i>Mountains</i> ar	re mo	ost often <b>formed</b>	<b>i</b> by <b>movement</b> of the	e <b>tectonic</b>	<b>plates</b> in the	e <b>Earth's</b>						
Learning	Crust.	irface	- the crust is	made of different co	ctions calls	ed <b>plate</b> r (B	a a creat	red		Plate	plate		
Science:	eqa shell).	anate	2 - 110 CIUSE - 15	made of unferent se					1 m	2- CA	-		
Y3: Rocks	Tectonic plate	es are	e pieces of the <b>r</b>	<b>ocky outer layer</b> of th	he <b>Earth</b> ki	nown as the	crust.		Pacific plate	South American plate	1 Car		
Magma/Molten/	These plates a	are <b>co</b>	onstantly movin	<b>ng</b> , and volcanoes, ea	rthquakes	and someti	mes mour	ntains are found at the		plate	Indo-Australian plate		
Minerals	plate bounda	ries.		It can take willing a		<b>f</b>	<b>t</b> .	aina ta fanna		Antarctic plate			
	There are <b>eig</b>	es mo ht mo	ove very <b>slowly</b> . <b>Dior plates</b> : Fura	it can take <i>millions c</i> asian, Pacific, IndoAu	stralian. Ar	ntarctic. Naz	or mounta zca. North	ains <i>to jorm</i> . American, South Ame	rican and Afri	can			
	Great mount	ain ra	<b>inges,</b> like the H	limalayas, often form	n <b>along the</b>	boundaries	<b>s</b> of these	plates.					
			-		-								
					<u>TH</u>	INKING PC	<u>DINT:</u>			<u>.</u>			
			Wh	at are the names o	of the eigh	nt major te	ctonic pla	ates of the Earth's cr	rust?	۲	(		
	The <i>Earth's p</i>	lates	are <b>constantly</b> i	<i>moving</i> ; on average,	this mover	ment is <b>betv</b>	veen 1 an	nd 10 cm per year.					
	Convection cu	urren	ts in the mantle	cause the <i>tectonic p</i>	plates to m	love.		- h					
	Occasionally	two <b>r</b>	e of monten roc plates move clo	<b>ser</b> to each other, or	converae:	this creates	ie plates a s <b>intense r</b>	above. <b>pressure</b> , causing the <b>p</b>	lates to buckl	e and form a moi	untain		
	<i>Fold</i> mountai	ns <i>, fa</i>	<i>ult-block</i> moun	itains <i>and dome</i> mou	intains are	generally <b>f</b>	ormed wit	thin the <i>main body of t</i>	<i>he plate</i> (cent	ral).			
	Volcanic mountains are generally formed on the plate boundaries.    THINKING POINT:   What is it that causes the plates to move?												
									{				
	What are the	What are the different plate boundaries?											
	Destructive plate boundary:   At a destructive plate boundary (also called convergent boundaries) two plates move towards another.												
	One plate is then <i>pushed underneath</i> the other. (It is the <i>heavier plate</i> that is <i>forced beneath</i> the lighter												
	plate). The <i>point</i> at which one plate is <i>forced beneath</i> the other is called the <i>subduction zone</i> . The <i>plate</i> then <i>melts</i> to become <i>molten rock (magma</i> ). The <i>magma</i> then <i>forces</i> its way up to the plate boundary to <i>form a volcano</i> .												
									X				
	Example: E	Example. Eurasian plate and Pacific plate where over 400 volcanoes are formed – most underwater.											
	Construct		plate bound	ary:		derice) me		from oach othor Ac	thay				
	Constructiv	re più + ma	ate boundaries	s (also called <b>diverg</b>	ent boun mantle	then <b>cools</b>	and <b>bar</b>	from each other. As	they				
	move apart, molten rock (magma) rises from the mantle, then cools and hardens to form new rock.												
		arasi		toren and plat									
											$\begin{pmatrix} 1 \end{pmatrix}$		
	Transform plate boundary:												
	At <b>transfor</b>	At transform plate boundaries two plates move past each other.											
Friction (rubbing) may cause them to stick. But, when they eventually become unstuck, often with a								na 🧧					
	violent jolt	, an <b>e</b>	earthquake res	sults.									
											_		
	THINKING POINT: What are the three different types of plate boundary and what are the main differences between them?												
									3				
		_											



(4 point grid reference)	Europe and their capita	il cities				olcanoes of Europe (	of interest of Europe (Human)			
OS Map	Locate towns and Plan a t		trip from Ocean Academy around Poole			key and some OS syl	Locate human (man-made) and			
(Dorset):	villages of Dorset	to p	ass/see local areas of i	areas of interest in Poole			physical features of interest in			
		<b>t</b>	Sch			M	ĬĬ	Dorset		
		Church	School	Viewpo	int	Museum	Country park			
Compass:	Use N, NE, E, SE, S, SW, W, NW to give and follow simple directions to reach a chosen destination in close range									
	Begin to use the 'direction of travel arrow' and 'rotating dial' on the compass to follow directions (e.g. Walk 20 steps North East).									
	W Size S St.									