ESS 100 (Stapleton) Quiz Version 3: Rock Dating Name: \_\_\_\_\_

Organize the lettered rock samples from oldest to youngest. Then make a mark where the earthquake occurred in the sequence.

	est												Newest
1.	Samp	le G cont	ains 27	K-40									
	parent atoms and 17 Ar-40								9				
	daughter atoms.												
	a. What percentage of					+++++					V /	F	
	those atoms are parent									$\mathbf{N}$	5	A' _	$\langle -$
	atoms	S?		<b>6</b> 4 6 (	ſ				B		G		C
	1%	21%	41%	61%	(Ta	$\sim$	$\sim$	D	1/		L A		
		δ1%			FO	$\mathcal{A}$				T-F-	J L	AR.	
	h	\N/hiah	ofthof	ollowing		$\forall \exists \forall$	282			1 A	ς Β		
	b. Which of the following						XK C		¥	) E		ୢୖୢୢୄ୷ୖ	
	H?					961		XHXXX		0		4	
	⊓: 1 hv	2hv	2 hv	4by	5 by								
2.	Samn	ZUY le K cont	JUY Jing 16 I	40y K_10 nar	ont stor	ກເລກທ	1 18 Ar_11	) daughter	atoms				
	a	What	nercent:	age of th	ose ator	ns are	narent a	toms?	7%	17%	27%	47%	77%
			percent			no are	parente	como.	,,,,	1,10	2770	1770	,,,,,
	b.	Which	of the f	ollowing	is close	st to t	he age of	Sample G	?				
	b.	Which 1by	of the f 2by	ollowing 3by	is close 4by	st to t 5by	he age of	Sample G	?				
	b.	Which 1by	of the f 2by	ollowing 3by	is close 4by	st to t 5by	he age of	Sample G	?				
	b. Samp	Which 1by le B cont	of the f 2by ains 11	ollowing 3by K-40 par	is close 4by ent ator	st to t 5by ms and	he age of d 17 Ar-4	Sample G	atoms.				
	b. Samp	Which 1by le B cont	of the f 2by ains 11	ollowing 3by K-40 par	is close 4by ent ator	st to t 5by ms and	he age of d 17 Ar-40	Sample G D daughter	atoms.				
	b. Samp a. Wł	Which 1by le B cont nat perce	of the f 2by ains 11 entage o	ollowing 3by K-40 par f those a	is close 4by ent ator toms ar	st to t 5by ms and e pare	he age of d 17 Ar-4 nt atoms	Sample G D daughter ?	atoms.				
	b. Samp a. Wł	Which 1by le B cont nat perce 19%	of the f 2by ains 11 entage o 39%	ollowing 3by K-40 par f those a 59%	is close 4by ent ator toms ar 79%	st to t 5by ms and e pare 99%	he age of d 17 Ar-4 nt atoms	Sample G <sup>2</sup> D daughter ?	atoms.				
	b. Samp a. Wł b. Wł	Which 1by le B cont nat perce 19% hich of th	of the f 2by ains 11 entage o 39% ne follow 2by	ollowing 3by K-40 par f those a 59% ving is clc	is close 4by ent ator toms ar 79% osest to	st to t 5by ms and e pare 99% the ag	he age of d 17 Ar-4 nt atoms e of Sam	Sample G <sup>2</sup> D daughter ? ple I?	atoms.				
	b. Samp a. Wł b. Wł	Which 1by le B cont nat perce 19% hich of th 1by	of the f 2by ains 11 entage o 39% ne follow 2by	ollowing 3by K-40 par f those a 59% ving is clc 3by	is close 4by ent ator toms ar 79% osest to 4by	st to t 5by ms and e pare 99% the ag 5by	he age of d 17 Ar-4 nt atoms e of Sam	Sample G D daughter ? ple I?	atoms.			(B)	
	b. Samp a. Wł b. Wł	Which 1by le B cont nat perce 19% hich of th 1by le L cont;	of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k	ollowing 3by K-40 par f those a 59% ving is clo 3by C-40 pare	is close 4by ent ator toms ar 79% osest to 4by	st to t 5by ms and e pare 99% the ag 5by	he age of d 17 Ar-40 nt atoms e of Sam 165 Ar-4	Sample G <sup>2</sup> D daughter ? ple I? -0 daughte	atoms.				L
	b. Samp a. Wł b. Wł Samp atomy	Which 1by le B cont nat perce 19% hich of th 1by le J conta	of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k	following 3by K-40 par f those a 59% ving is clo 3by C-40 pare	is close 4by ent ator toms ar 79% osest to 4by ent aton	st to t 5by ms and e pare 99% the ag 5by ns and	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4	Sample G <sup>2</sup> O daughter ? ple I? O daughte	atoms.			(B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	L
	b. Samp a. Wł b. Wł Samp atoms a.	Which 1by le B cont 19% hich of th 1by le J conta s. What	a of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k percent:	ollowing 3by K-40 par f those a 59% ving is clo 3by C-40 pare age of th	is close 4by ent ator toms ar 79% osest to 4by ent aton	st to t 5by ms and e pare 99% the ag 5by ns and ms are	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4 parent a	Sample G <sup>2</sup> O daughter ? ple I? O daughte toms?	atoms.			(B) <	
-	b. Samp a. Wł b. Wł Samp atoms a.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10%	of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k percent: 30%	ollowing 3by K-40 par f those a 59% ving is clo 3by C-40 pare age of th 50%	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70%	st to t 5by ms and e pare 99% the ag 5by ns and ms are 90%	he age of d 17 Ar-40 nt atoms e of Sam 165 Ar-4 parent a	Sample G <sup>2</sup> O daughter ? ple I? O daughte toms?	atoms.				
	b. Samp a. Wł b. Wł Samp atoms a.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10%	a of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k percenta 30%	following 3by K-40 par f those a 59% ving is clo 3by C-40 pare age of th 50%	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70%	st to t 5by ms and 99% the ag 5by ns and ms are 90%	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4 parent a	Sample G <sup>2</sup> O daughter ? ple I? O daughte toms?	atoms.				
	b. Samp a. Wł b. Wł Samp atoms a. b.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10% Which	a of the f 2by ains 11 entage o 39% ne follow 2by ains 18 k percenta 30%	following 3by K-40 par f those a 59% ving is clo 3by C-40 pare age of th 50%	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70% is close	st to t 5by ms and e pare 99% the ag 5by ns and ms are 90% st to t	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4 parent a he age of	Sample G <sup>2</sup> D daughter ? ple I? 0 daughte toms? Sample J?	atoms.				
	b. Samp a. Wł b. Wł Samp atoms a. b.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10% Which 1by	a of the f 2by ains 11 f entage o 39% ne follow 2by ains 18 k percenta 30% of the f 2by	following 3by K-40 par f those a 59% ving is clo 3by C-40 pare age of th 50% following 3by	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70% is close 4by	st to t 5by ms and e pare 99% the ag 5by ns and ms are 90% st to t 5by	he age of d 17 Ar-40 nt atoms e of Sam 165 Ar-4 parent a he age of	Sample G <sup>2</sup> D daughter ? ple I? O daughte toms? Sample J?	atoms.				
	b. Samp a. Wł b. Wł Samp atoms a. b.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10% Which 1by	a of the f 2by ains 11 f entage o 39% ne follow 2by ains 18 k percenta 30% of the f 2by	following 3by K-40 par f those a 59% ving is clc 3by C-40 pare age of th 50% following 3by	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70% is close 4by	st to t 5by ms and e pare 99% the ag 5by ms and ms are 90% st to t 5by	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4 parent a he age of	Sample G <sup>2</sup> O daughter ? ple I? O daughte toms? Sample J?	atoms.				
	b. Samp a. Wł b. Wł Samp atoms a. b.	Which 1by le B cont 19% hich of th 1by le J conta s. What 10% Which 1by many yea	a of the f 2by ains 11 f entage o 39% ne follow 2by ains 18 k percenta 30% a of the f 2by ars ago c	following 3by K-40 par f those a 59% /ing is clc 3by C-40 pare age of th 50% following 3by	is close 4by ent ator toms ar 79% osest to 4by ent aton ose ator 70% is close 4by arthqual	st to t 5by ms and e pare 99% the ag 5by ns and ms are 90% st to t 5by st to t	he age of d 17 Ar-4 nt atoms e of Sam 165 Ar-4 parent a he age of ate the fa	Sample G <sup>2</sup> D daughter ? ple I? 0 daughte toms? Sample J? ult in the t	atoms.	ram?	3		

6. The diagram on the right shows rock samples from another location on Earth. Choose the most likely age range for layer L, in that diagram. 0-1by 1-2by 2-3by 3-4by 4-5by

