





RAINFALL AT *Kirkby Lonsdale Biggins House*

Lat. .... Lon. .... County of *Westmorland*  
 Rain Gauge, by ..... Observer *Miss E. Linderson*

Diameter .....	1	.	.	.	.	.	.	.	.	.	.
Height .....	3	6	.	.	.	.	.	.	.	.	.
Altitude .....	400	.	.	.	.	.	.	.	.	.	.
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	4.80	2.64	7.62	6.78	6.50	6.35	2.23	7.15	5.00	1.16	5.023
February .....	2.08	4.19	4.73	2.5	2.01	.95	5.80	4.50	2.30	1.95	2.876
March .....	1.83	1.85	4.80	3.00	4.33	1.30	4.30	4.45	2.40	3.00	3.126
April.....	2.20	3.30	2.62	.52	1.61	1.45	2.70	2.20	2.61	1.01	2.022
May .....	3.29	1.59	2.42	1.90	1.59	2.90	.78	2.53	4.36	2.41	2.377
June.....	1.83	3.54	7.64	3.07	.95	4.10	3.49	3.20	3.85	4.90	3.657
July .....	7.68	7.40	4.40	5.82	3.21	2.91	4.49	5.40	1.73	7.50	4.454
August.....	1.81	2.90	6.76	5.80	5.85	4.40	3.76	7.80	7.23	5.15	5.146
September.....	3.10	3.15	10.00	3.74	4.83	4.30	5.44	4.10	5.64	4.15	4.845
October.....	7.85	6.80	7.18	8.53	7.70	3.51	1.42	8.00	5.31	3.51	5.981
November.....	2.94	1.48	5.49	2.63	5.21	6.41	2.86	9.15	3.00	1.40	4.057
December.....	2.51	4.91	4.05	2.13	2.51	2.40	6.30	4.75	2.13	2.75	3.444
TOTALS .....	35.92	43.75	67.71	44.11	46.30	40.98	43.57	63.23	45.56	38.89	47.002

1879 Deoda 12ft high & 24ft E.

Kirkby Lonsdale church 1 mile E.



RAINFALL AT *Kirkby Lonsdale Vicarage*

Lat..... Lon..... County of... *Nesmondland*...  
..... Rain Gauge, by..... Observer *Rev. Henry Ware*.....

Diameter .....	<i>.5</i>										
Height .....	<i>/</i>										
Altitude .....	<i>210.</i>										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>4.12</i>										
February .....	<i>1.92</i>										
March .....	<i>1.83</i>										
April.....	<i>2.43</i>										
May .....	<i>3.15</i>										
June .....	<i>1.76</i>										
July .....	<i>7.52</i>										
August.....	<i>1.68</i>										
September.....	<i>2.92</i>										
October.....	<i>7.57</i>										
November.....	<i>2.72</i>										
December.....	<i>2.51</i>										
TOTALS .....	<i>34.13</i>										

*C*



RAINFALL AT *Kirkby Lonsdale, Norwood, Cott. Casterton*

Lat.....

Lon.....

County of...

*Westmorland*.....

..... Rain Gauge, by.....

Observer

*J Morris Esq.**Daily*

Diameter .....	.8	.	.	.	.	.	.	.	.	.	.	.
Height .....	1	.	.	.	.	.	.	.	.	.	.	.
Altitude .....	305	.	.	.	.	.	.	.	.	.	.	.
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	3.47	1.98	7.18	7.02	6.08	6.67	2.91	7.36	4.96	1.60	4.923	
February .....	1.79	4.02	4.44	4.7	2.06	1.09	6.86	4.95	2.24	2.80	3.072	
March .....	1.75	1.82	4.75	2.82	5.27	1.56	4.92	4.31	2.58	3.15	3.293	
April.....	2.34	3.45	3.16	.59	2.08	1.65	3.12	2.48	2.81	1.15	2.283	
May .....	3.24	1.88	2.58	2.18	2.35	3.07	.71	2.68	4.51	2.39	2.659	
June.....	7.64	3.42	6.51	3.14	1.10	4.87	3.57	3.34	4.71	5.97	3.827	
July .....	1.69	7.54	4.98	5.59	3.29	3.41	4.42	6.09	1.52	7.47	4.600	
August.....	1.66	2.95	5.88	5.36	6.51	4.32	3.82	7.63	7.59	5.99	5.171	
September.....	2.96	3.16	9.56	3.49	5.23	4.42	6.22	3.42	6.31	3.96	4.873	
October.....	7.86	6.11	6.92	8.57	7.71	3.53	3.08	7.88	4.81	3.55	6.002	
November.....	2.67	1.20	5.67	3.02	5.62	6.72	3.14	9.08	3.15	2.04	4.231	
December.....	2.87	4.58	4.52	2.73	3.54	3.11	6.39	5.05	2.38	2.90	3.807	
TOTALS .....	33.94	42.11	66.15	44.98	50.84	44.42	49.16	64.27	47.57	42.97	48.641	

1870 During the Eclipse the temp. fell from  $28^{\circ}$  to  $26^{\circ}$  the sky seemed a deep blue, at times the clouds were tinged with pink. Min Temp. was  $8^{\circ}5$  on  $31^{th}$  of Dec.

1877 Lapwing on Ice on  $11^{th}$  Jan. Earthquake Mar  $17^{th}$  at 6.30 & a more violent one at 11 p.m. motion E to W but generally W to E from  $18^{th}$ . Remarkable Rainbows there were five at one time 3 blended together from 6.30 p.m. to 8.30 p.m. on  $17^{th}$  May doing much damage, a  $25^{th}$  .680 in half an hour.

76 Summer house 15 ft to the N of the gauge, 10 ft 6 in high

79 garden wall 55. " " E & ESE. " " 7. " "

Kirkby Lonsdale church  $1\frac{1}{2}$  miles W.N.W.



RAINFALL AT *Kirkby Lonsdale, Norwood, Cott. Casterton*

Lat.....

Lon.....

County of.....

*Westmorland*

..... Rain Gauge, by.....

Observer .....

*J Morris Esq.**Monthly*

Diameter .....	.8										
Height .....	1										
Altitude .....	305										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	3.80	1.97	7.19	6.98	5.91	6.80					
February .....	1.81	4.08	4.74	.48	2.06	1.15					
March .....	1.75	1.82	4.72	2.82	5.20	1.58					
April.....	2.40	3.53	3.10	.57	2.05	1.67					
May .....	3.35	1.89	2.68	2.16	2.31	3.18					
June.....	1.65	3.45	6.50	3.10	1.06	5.04					
July .....	1.67	7.54	4.91	5.52	3.29	3.50					
August.....	7.64	2.97	5.83	5.30	6.48						
September.....	3.00	3.13	9.52	3.43	5.07	4.39					
October.....	7.82	6.09	6.74	8.43	7.70	3.60					
November.....	2.69	1.30	5.69	2.93	5.45	6.73					
December.....	2.88	4.63	4.45	2.69	3.53	3.19					
TOTALS .....	34.46	42.40	66.07	44.41	50.11						

1871 Nov. 10<sup>th</sup> grand display of colored Aurora from 9.45 to 10 PM  
 1872 Aug 11<sup>th</sup> 2.26 in fell in 24 hrs



RAINFALL AT *Kirkby Lonsdale*

Lat.....

Lon.....

County of *Westmorland*

Rain Gauge, by.....

Observer

*Mr. W. Harrison**Av 1861-1915 47.5*

Diameter .....	.5											
Height .....	1.2						1.6			1.2		
Altitude .....	109.	209.										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	4.10	1.95	7.45	6.40	6.00	6.10	2.80	5.80	5.00	1.50	4.710	
February .....	1.90	4.20	4.72	.70	1.95	.85	6.10	5.20	2.15	2.40	3.017	
March .....	1.80	1.82	4.75	2.80	4.80	1.50	4.48	2.32	2.50	3.00	2.977	
April.....	2.31	3.35	2.42	.55	1.80	1.55	2.60	2.50	2.70	1.00	2.078	
May .....	3.20	1.45	2.45	2.00	1.75	3.10	.80	2.30	4.35	2.50	2.390	
June.....	1.73	3.42	6.05	2.12	1.00	4.90	3.70	3.20	3.85	5.25	3.522	
July .....	1.57	7.53	4.82	5.75	2.00	3.25	3.70	5.20	1.60	6.50	4.192	
August.....	1.73	3.10	6.18	6.00	6.05	4.35	3.60	6.50	7.40	5.72	5.063	
September.....	3.05	3.34	9.48	4.08	4.85	4.40	5.70	3.85	6.00	3.50	4.825	
October.....	8.23	6.20	6.70	8.00	7.80	3.50	2.50	6.50	4.90	3.60	5.793	
November.....	2.82	1.35	5.65	2.80	5.20	6.15	2.80	8.30	3.00	2.10	4.017	
December.....	2.64	4.85	4.50	2.55	4.25	2.90	6.30	3.50	2.10	2.60	3.619	
TOTALS .....	35.08	42.56	65.17	43.75	47.45	42.55	45.08	55.17	45.55	39.67	46.203	

*C C C*



# RAINFALL AT *Kirkby Lonsdale Whelping*

Lat.....

Lon.....

County of.....

*Westmorland*

Rain Gauge, by..... Observer *Mrs Gibson*

Diameter .....	.5										
Height .....	4 6					2					
Altitude .....	475										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	4.80	2.00	8.02	7.27	6.23	6.75	3.09	7.76	4.43	1.99	5.242
February .....	2.08	4.71	5.13	.57	2.44	1.18	6.85	4.09	2.47	3.08	3.260
March .....	2.48	2.06	5.40	3.67	4.32	1.49	3.87	3.71	1.91	3.82	3.273
April.....	2.11	3.50	2.91	.56	2.10	1.53	3.24	3.29	2.97	1.04	2.325
May .....	3.42	1.81	2.81	2.45	2.39	3.52	.80	2.32	4.68	1.96	2.616
June.....	7.49	3.15	6.37	2.46	.86	4.66	3.70	2.87	4.79	7.35	3.770
July .....	1.84	7.64	4.15	6.14	3.12	3.15	4.28	5.65	1.04	7.02	4.403
August.....	1.87	3.40	5.64	5.42	6.66	4.49	3.81	7.64	8.03	5.61	5.257
September.....	2.95	3.67	8.90	3.25	5.05	4.93	5.74	4.13	5.64	3.94	4.820
October.....	8.70	6.27	7.06	7.94	7.38	3.69	2.98	6.59	4.48	2.60	5.769
November.....	2.98	1.73	6.12	2.83	5.43	6.66	3.49	8.05	3.04	1.72	4.205
December.....	3.28	5.19	5.76	2.42	4.06	3.04	6.90	4.47	2.13	2.56	3.981
TOTALS .....	38.08	45.13	68.27	44.98	50.04	45.09	48.75	60.57	45.61	42.69	48.92



RAINFALL AT *Crosthwaite Churchtown*

Lat..... Lon..... County of *Westmorland*

Rain Gauge, by..... Observer *W<sup>m</sup> Garnett Esq*

Diameter .....	5										
Height .....	1 3					1.3					
Altitude .....	150										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	6.10	2.95	10.96	10.79	7.65	9.27					
February .....	3.54	5.84	6.31	1.02	3.34	2.08					
March .....	2.43	3.06	6.16	3.33	4.37	1.70					
April.....	2.00	3.92	2.90	.69	1.69	1.48					
May .....	4.71	1.88	3.05	3.31	1.18	2.98					
June.....	1.91	2.51	5.61	3.05	1.61	5.16					
July .....	7.89	5.50	4.54	5.80	3.11	3.40					
August.....	2.54	4.66	4.85	6.26	7.42	3.16					
September.....	4.07	4.34	8.72	3.06	6.33	7.04					
October.....	10.42	7.09	7.81	8.36	11.86	4.55					
November.....	4.08	2.20	6.88	3.10	5.05	6.64					
December.....	2.58	6.37	5.77	2.56	4.39	4.12					
TOTALS .....	46.19	50.32	73.56	51.33	58.00	51.58					



RAINFALL AT *Kendal Highgate*

Lat. ....

Lon. ....

County of *Westmorland* .....Rain Gauge, by ..... Observer *E. Hayton Esq* .....

Diameter .....	.8	.	.	.	.	.	.	.	.	.	.
Height .....	5	.	.	.	.	.	.	.	.	.	.
Altitude .....	180	.	.	.	<sup>78</sup> 180	.	.	.	.	.	.
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.75	2.76	10.02	9.30	7.44	8.39	3.68	9.17	5.80	2.21	6.452
February .....	3.13	5.52	5.71	.78	3.11	1.51	6.77	4.11	2.98	3.53	3.715
March .....	2.51	2.52	5.49	3.51	4.51	1.65	5.14	3.14	2.58	3.26	3.431
April.....	2.00	3.20	2.39	.61	1.92	1.73	2.83	2.60	2.84	1.35	2.147
May .....	4.60	1.98	2.88	2.47	1.16	2.88	1.08	3.08	5.50	1.72	2.735
June.....	1.67	1.98	4.97	2.69	1.22	5.48	4.68	3.01	3.76	6.05	3.557
July .....	7.26	7.67	4.79	6.86	3.30	2.57	3.44	6.20	.65	6.00	4.274
August.....	1.67	6.99	5.33	6.19	7.44	3.13	4.18	5.78	4.69	4.87	5.027
September.....	3.03	4.00	8.58	3.05	5.77	6.20	5.06	4.41	5.59	4.09	4.978
October.....	9.90	6.70	7.64	7.95	12.65	3.84	4.39	8.52	5.27	2.45	6.931
November.....	3.65	1.77	6.64	3.07	4.25	6.73	3.36	10.39	2.24	1.20	4.330
December.....	2.23	6.38	6.45	2.51	3.74	3.93	8.83	5.62	2.45	4.08	4.622
TOTALS .....	41.40	51.47	70.89	48.99	56.51	48.04	53.44	66.03	44.35	40.81	52.193

1879 Thorn tree 20 ft high + 60 ft N.W.

Kendal church 300 yds S.E.



# RAINFALL AT Kendal Underfell

70

Lat. ....

Lon. ....

County of Westmorland

Rain Gauge, by

Observer

John J. Wilson Esq

Old Gauge

Diameter....	.8	.	.	.	.	.	.	.	.	.	.
Height ....	4	.	.	.	.	.	.	3	4	-	.
Altitude ....	300	.	.	.	*	.	.	.	.	.	.
Year ....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....	5.20	2.52	9.94	9.68	7.90	7.45	3.54	9.09	5.76	2.03	6.311
February....	2.75	4.84	5.16	1.01	3.21	1.41	6.33	3.79	2.82	3.68	3.500
March.....	2.33	2.06	5.53	3.57	4.14	1.58	4.67	3.09	2.51	3.42	3.290
April .....	1.86	3.09	2.18	.54	1.82	1.78	2.86	2.45	2.87	1.80	2.125
May .....	4.19	1.94	2.71	2.52	1.19	2.61	.95	3.22	5.46	1.98	2.677
June .....	1.55	2.09	4.44	2.98	1.14	5.73	4.91	3.17	3.68	6.30	3.599
July.....	1.17	7.26	4.47	7.01	2.74	2.84	3.35	6.64	.59	6.54	4.261
August ....	1.61	7.24	5.22	6.34	7.52	2.99	4.31	5.61	4.94	5.36	5.114
September ..	2.80	3.89	8.49	3.09	5.76	6.32	5.15	4.39	5.65	3.76	4.930
October ....	10.59	6.59	7.95	8.81	13.25	3.99	4.36	8.26	5.28	2.34	7.142
November ..	3.47	1.67	6.65	3.00	4.28	7.24	3.33	10.35	2.55	1.59	4.413
December ..	2.15	6.09	6.07	2.49	3.65	3.88	8.59	5.65	2.83	4.16	4.566
TOTALS ..	39.67	49.28	68.81	51.04	56.60	47.82	52.35	65.71	44.94	42.96	51.918

Kendal Church  $\frac{1}{4}$  mile E.

75 ft. E of House 20 ft. N of Low trees & shrubs.



# RAINFALL AT Kendal Underfell 70

Lat.....

Lon.....

County of..Westmoreland.

Rain Gauge, by...N.G. J..... Observer... Frank Wilson Esq

no III

Diameter.....					8						
Height .....					1 -						
Altitude.....					300						
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....						7.99	3.77	10.02	6.16	2.13	
February.....						1.52	6.73	4.45	3.03	3.88	
March.....						1.62	4.86	3.22	2.66	3.63	
April.....						1.82	2.95	2.52	2.98	1.89	
May .....						2.67	1.01	3.33	5.66	2.09	
June.....					#1.19	5.82	4.91	3.19	3.73	6.40	
July .....					2.84	2.94	3.49	6.76	.65	6.73	
August .....					7.73	3.08	4.27	5.80	5.09	5.63	
September.....					6.06	6.48	5.28	4.50	5.94	4.19	
October.....					13.22	4.12	4.51	8.75	5.41	2.84	
November.....					4.52	6.90	3.57	10.86	2.66	1.68	
December.....					3.79	4.02	9.65	5.99	3.00	4.58	
TOTALS .....						48.98	55.00	69.39	46.97	45.67	

1875 Gauge very slightly sheltered in N.W.VV.

Kendal church  $\frac{1}{4}$  mile E

65 ft S.E. of house.



# RAINFALL AT Kendal Underfell

Lat..... Lon..... County of Westmoreland  
 Rain Gauge, by N. & Z. Observer J. J. Wilson  
No. II Monthly J. Wilson

Diameter.....				.8							
Height .....				4	*	1					
Altitude.....				300							
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....				# 9.05	7.19	7.50	3.68	8.93	6.00	2.22	
February.....				1.04	3.06	1.42		4.01	3.07	3.89	
March.....				3.41	3.61	1.65	4.86	3.14	2.51	3.55	
April.....				.61	1.66	1.70	2.92	2.57	2.87	1.77	
May .....				2.56	1.25	2.49	.86	3.12	5.58	2.00	
June.....				2.73	1.14	5.58	4.53	2.95	3.59	6.26	
July .....				6.95	2.82	2.92	3.74	8.51	.58	6.34	
August.....				6.30	7.59	2.99	3.97	5.22	5.04	5.35	
September.....				3.04	5.86	6.34	5.23	4.24	5.67	4.33	
October.....				7.94	12.82	4.07	4.33	8.43	5.30	3.00	
November.....				2.87	4.32	6.89	3.38	10.40	2.56	1.72	
December.....				2.31	3.69	3.75	{ 8.58 1.00	5.73	2.43	4.89	
TOTALS.....				48.81	55.01	47.30		67.25	45.20	45.32	

1874 Gauge lowered to 1ft above ground on May 20

1875 Gauge slightly sheltered in N.E.

1876 Account for Feb lost: the Dec fall is increased by one inch as the snow fall on the 23<sup>rd</sup> was 12 inches deep + of course very little of this got into the gauge

Close to No I gauge

Kendal church  $\frac{1}{4}$  mile E.



# RAINFALL AT Kendal Hawesmead

Lat..... Lon..... County of... *Westmorland*  
 ..... Rain Gauge, by..... Observer... *G. F. Braithwaite Esq*

Diameter.....			8									
Height .....			6		5		6					
Altitude.....			175		176							
Year .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....				8.89	7.54	8.22	3.88	9.07	5.74	2.08		
February.....				1.00	2.95	1.62	7.06	4.36	2.85	3.83		
March.....				3.44	4.37	1.65	5.06	3.38	2.47	3.56		
April.....				.58	2.10	1.81	3.07	2.64	2.90	1.85		
May .....				2.37	1.21	3.03	.99	3.22	5.41	1.94		
June.....				2.72	1.31	5.28	4.76	2.93	3.74	6.23		
July .....				6.38	3.10	2.69	3.57	6.20	.59	6.62		
August .....			#	5.14	5.81	7.46	3.38	4.20	5.94	5.28	5.50	
September.....				8.71	2.93	5.94	6.43	5.19	4.47	5.55	4.36	
October.....				7.52	8.25	12.55	3.88	4.46	7.97	5.35	2.84	
November.....				6.50	3.03	4.35	6.88	3.47	10.20	2.48	1.87	
December.....				6.07	2.49	3.89	3.96	9.03	5.95	2.56	4.33	
TOTALS .....				47.89	56.77	48.83	54.74	66.33	44.92	45.01		

1877 Two Rees one 7ft & the other 11ft high both 10ft or 11ft off

Kendal church  $\frac{3}{4}$  mile NE.



RAINFALL AT Kemdal Kent Terrace

Lat..... Lon..... County of Westmorland

Rain Gauge, by..... Observer R. J. Nelson Esq.

Ar 1881-1215      510

Diameter .....	.5	.						.	.	.	.	
Height .....	1	.6	.					.	.	.	.	
Altitude .....	146	.						.	.	.	.	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	#5.67	2.85	9.87	9.44	6.76	8.44	3.73	8.94	5.69	1.93	6.332	
February .....	3.29	5.04	5.93	.65	3.10	1.43	6.75	4.03	2.96	3.61	3.649	
March .....	2.85	2.66	5.61	3.30	4.38	1.73	4.80	2.95	2.58	3.54	3.440	
April.....	2.46	3.26	2.19	.51	1.96	1.69	2.95	2.86	3.15	1.67	2.230	
May .....	4.87	1.83	2.73	2.52	1.05	2.63	.98	2.97	4.88	1.89	2.635	
June .....	1.58	1.98	4.65	2.69	1.21	5.28	3.94	2.94	3.77	6.15	3.419	
July .....	7.25	7.67	4.80	7.30	2.98	2.40	3.42	6.19	.55	6.12	4.268	
August .....	1.74	6.99	4.64	5.90	7.40	3.06	3.95	5.93	4.37	5.44	4.942	
September.....	3.09	3.94	8.18	2.94	5.76	5.75	4.95	4.41	5.40	4.09	4.851	
October.....	+10.25	6.65	7.57	8.36	12.60	3.33	4.15	8.61	5.38	2.74	6.964	
November.....	4.05	1.56	6.64	3.33	4.22	6.57	3.23	10.35	2.44	1.61	4.400	
December.....	2.39	5.82	6.37	2.43	3.69	3.91	9.01	5.60	2.59	4.39	4.620	
TOTALS .....	43.09	50.25	69.18	49.37	55.11	46.22	51.86	65.78	43.76	43.18	51.780	

1879 Wall 4ft high & 6ft NNE.

St George's church 300 yds N.

Hyd Sta. No. 45- 585681

NGR: SD (34) 513928

alt 44m



RAINFALL AT *Bowness Bellsfield*

Lat..... Lon..... County of *Westmorland*

Rain Gauge, by..... Observer *H. W. Schneider Esq.*

Diameter .....		<i>.5</i>									
Height .....		<i>4.6</i>	<i>11</i>								
Altitude .....		<i>160</i>									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....		<i>#2.50</i>	<i>11.65</i>	<i>11.90</i>							
February .....		<i>8.40</i>	<i>6.60</i>	<i>1.60</i>							
March .....		<i>5.30</i>	<i>6.58</i>	<i>3.07</i>							
April.....		<i>2.80</i>	<i>3.70</i>	<i>.30</i>							
May .....		<i>1.50</i>	<i>3.06</i>	<i>3.11</i>						<i>1.84</i>	
June.....		<i>1.15</i>	<i>5.30</i>	<i>3.31</i>							
July .....		<i>6.58</i>	<i>6.15</i>	<i>8.04</i>						<i>8.11</i>	
August.....		<i>5.20</i>	<i>4.95</i>	<i>6.46</i>							
September.....		<i>4.12</i>	<i>9.55</i>	<i>2.87</i>							
October.....		<i>5.32</i>	<i>8.50</i>	<i>8.99</i>							
November.....		<i>1.70</i>	<i>7.98</i>	<i>3.62</i>							
December.....		<i>6.50</i>	<i>7.90</i>	<i>3.49</i>							
TOTALS .....		<i>51.07</i>	<i>81.92</i>	<i>56.81</i>						<i>55.35</i>	

*c c*  
*moreply*



RAINFALL AT *Bowness, Nassons Grounds*

Lat..... Lon..... County of *Westmorland*

Rain Gauge, by..... Observer *J. Kealey Esq.*

Diameter .....	/	.	.	.	.	.	.	.	.	.	.	.
Height .....	8	.	.	.	.	.	.	.	.	.	.	.
Altitude .....	405	451.0	π	.	.	.	.	.	.	.	.	.
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	6.18	3.85	13.43	11.74	9.23	11.09	5.02	11.59	7.02	2.01	8.116	
February .....	5.14	7.74	7.10	1.29	4.79	2.21	7.54	5.14	3.35	4.95	4.925	
March .....	2.94	4.29	6.59	3.38	5.69	1.90	6.11	3.59	3.86	4.08	4.263	
April.....	2.67	4.20	2.56	.54	2.07	2.04	3.55	2.96	2.72	2.15	2.546	
May .....	4.93	1.93	2.96	3.51	1.15	3.22	.95	4.45	5.47	1.88	3.045	
June.....	2.01	2.49	5.35	3.66	2.62	5.94	4.39	3.86	3.73	6.44	4.049	
July .....	7.29	6.26	4.54	7.91	2.96	3.20	3.45	6.52	.66	7.87	4.466	
August.....	2.51	5.72	6.08	6.07	9.12	4.08	5.28	7.19	5.29	6.06	5.740	
September.....	4.11	4.30	10.36	4.02	7.31	8.22	6.46	4.60	7.12	6.04	6.254	
October.....	12.09	8.04	9.55	8.95	14.29	6.54	5.54	10.49	6.92	3.36	8.577	
November.....	5.52	2.66	9.54	4.41	5.49	7.13	4.52	11.73	1.93	2.07	5.500	
December.....	3.50	7.87	7.59	3.95	5.30	4.83	10.97	7.66	3.03	5.52	6.022	
TOTALS .....	52.89	59.35	85.65	59.63	70.02	60.40	63.78	79.78	51.10	52.43	63.503	



RAINFALL AT *Sorely Reston Hall Middle Fairbank*

Lat.....

Lon.....

County of *Westmorland*Rain Gauge, by..... Observer *J K Atkinson Esq.*

Diameter .....	.10										
Height .....	3										
Altitude .....											
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	6.53	3.52	13.50	10.19	9.70	11.05	3.25	10.83			
February .....	4.79	7.01	6.63	1.62	3.71	2.23	6.10	4.91			
March .....	3.45	4.01	7.39	2.79	4.14	1.76	3.01	3.20			
April.....	2.81	3.80	2.71	.36	1.61	2.09	1.50	2.95			
May .....	5.79	1.93	2.79	2.96	.98	3.26	.71	3.66			
June .....	2.58	2.64	5.76	3.92	2.40	3.64	4.77	4.74			
July .....	2.05	5.93	3.93	7.51	4.49	2.65	1.92	7.97			
August.....	7.46	6.67	5.77	6.18	9.45	3.73	6.04	6.18			
September.....	5.39	3.71	8.93	4.36	7.23	7.50	5.86	5.15			
October.....	11.75	9.34	10.29	7.70	18.67	6.13	5.18	13.89			
November.....	5.85	2.28	9.25	3.34	5.26	6.47	5.99	10.94			
December.....	2.77	0.40	5.92	5.14	4.81	4.12	11.95	7.58			
TOTALS .....	55.22	59.24	82.87	56.01	72.45	54.63	56.28	82.00			

Miss Milburn of Reston Hall writes 20th 6th 79  
 "The Rainfall has not been measured at Reston  
 since my residence here (ten years)".



# RAINFALL AT Hawcley

70

Lat. ....

Lon. ....

County of Westmoreland

Rain Gauge, by

Observer

J. B. Godfrey

Diameter . . .									5		
Height . . . .									1		
Altitude . . .									320		
Year . . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .									7.64	2.19	
February . . .									3.55	4.40	
March . . . . .									3.43	4.26	
April . . . . .									3.50	1.66	
May . . . . .									5.41	1.97	
June . . . . .									3.76	8.26	
July . . . . .									.66	7.39	
August . . . .									5.72	6.70	
September . .									7.20	5.73	
October . . . .									6.28	3.14	
November . .									2.69	2.21	
December . .									3.94	5.44	
TOTALS . .									53.78	53.35	



RAINFALL AT *Mindermere High House*

Lat.....

Lon.....

County of.....

*Westmorland*

..... Rain Gauge, by.....

Observer

*E. Haydon Esq.*

Diameter .....	.8	.									
Height .....	4	.	.	4.6							
Altitude .....	636.	.									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.97	3.76	11.96	9.85							
February .....	4.76	6.35	5.91	1.13							
March .....	3.03	3.85	5.78	3.37							
April.....	2.44	3.03	2.44	.50							
May .....	4.98	1.66	2.61	2.35							
June.....	2.12	1.98	5.24	3.35							
July .....	7.22	6.40	4.17	6.75							
August .....	1.71	5.09	6.47	5.95							
September.....	4.14	3.92	8.90	2.97							
October.....	9.65	8.24	8.06	8.31							
November.....	4.97	2.31	7.46	2.62							
December.....	2.31	7.43	6.58	2.48	#						
TOTALS .....	47.30	54.02	75.58	49.63							



RAINFALL AT *Nindermer The Wood*

Lat.....

Lon.....

County of *Westmorland*

Rain Gauge, by.....

Observer

*G. B. Crewdson Esq.*

Diameter .....	8	.					.	.			
Height .....	3	2	.				.	.			
Altitude .....	310	.	322	.			.	.			
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	7.03	4.46	14.04	12.31	9.16	12.56	5.97	12.80	8.23	2.50	8.906
February .....	4.27	8.11	7.31	3.79	4.43	2.21	7.80	5.33	4.46	5.26	5.297
March .....	3.67	4.17	7.16	2.41	5.45	2.04	6.26	3.55	3.71	4.96	4.338
April.....	2.26	3.74	2.73	4.5	2.14	2.04	3.73	3.37	3.29	1.60	2.535
May .....	5.89	1.90	3.13	3.34	1.18	3.18	87	4.39	5.70	1.65	3.123
June.....	2.04	1.76	5.91	4.12	3.22	6.08	4.18	3.97	4.64	7.38	4.330
July .....	2.75	6.23	4.97	8.00	3.03	3.37	3.29	6.39	3.5	7.25	4.363
August.....	1.88	4.66	5.68	6.47	9.40	4.79	5.18	8.61	6.30	6.12	5.909
September.....	5.41	3.71	10.96	3.92	6.93	7.96	5.46	4.05	7.30	7.04	6.274
October.....	12.57	10.08	9.76	9.84	14.56	7.37	5.21	11.76	6.09	3.44	9.068
November.....	5.39	2.69	9.24	3.60	5.38	7.12	5.02	12.55	3.30	2.34	5.663
December.....	2.76	8.68	7.96	3.12	5.53	4.65	11.54	8.24	3.81	7.01	6.330
TOTALS .....	53.92	60.19	88.85	61.37	70.41	63.37	64.51	85.01	57.18	56.55	66.136

1870 Figures sadly blotted, total plain

1876 G. B. Crewdson dead observations continued by  
G. Crewdson



# RAINFALL AT *Windermere The Howe Trout Beck*

Lat. ....

Lon. .... County of *NesAmorland*

..... Rain Gauge, by..... Observer *Miss E Wilson*

Diameter .....	.8										
Height .....	1.2										
Altitude .....	470.										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.87										
February .....	5.87										
March .....	4.27										
April .....	1.68										
May .....	5.78										
June.....	2.31										
July .....	7.43										
August.....	1.68										
September.....	5.31										
October.....	<sup>+</sup> 13.27										
November.....	5.16										
December.....	4.09 #										
TOTALS .....	56.72										

C



# RAINFALL AT *Windermere Hole* *bird*

70

Lat..... Lon..... County of... *Westmorland*  
 ..... Rain Gauge, by..... Observer... *Robt. M. Dunslop*

Diameter.....					8						
Height .....					1						
Altitude.....					420			425			
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....						9.35		9.33	7.05		
February.....						2.70		8.60	3.30		
March.....						2.08		5.05	4.65		
April.....						10		3.25	3.07		
May .....						4.85		1.90	4.80		
June.....					3.32	4.75		6.30	5.45		
July .....					2.95	4.98		5.90	30		
August .....					8.26	2.00		5.00	5.27		
September.....					7.44	7.33		6.36	7.09		
October.....					15.25	11.60		8.64	4.06		
November.....					5.24	7.22		11.58	3.22		
December.....					6.30	50		8.33	3.60		
TOTALS .....						57.46	—	80.24	51.86		

1876 N.O.

1877 nothing within 60 or 70 yards of gauge

1879 no ref



# RAINFALL AT *Windermere Hazelthwaite*

70

Lat. ....

Lon. ....

County of *Westmorland*

Rain Gauge, by .....

Observer *C. Somerville*

Diameter ....									.8	.	
Height ....									1.	.	
Altitude ....									330	.	
Year ....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....									# (5.32)	2.38	
February ....									4.19	5.23	
March .....									3.16	4.69	
April .....									3.30	2.26	
May .....									5.42	1.55	
June .....									4.42	5.60	
July .....									.52	7.71	
August ....									5.75	6.52	
September ..									7.14	6.86	
October ....									6.43	2.13	
November ..									2.75	2.84	
December ..									3.52	6.31	
TOTALS ..									—	54.08	

1878 Observations commenced Jan'y 13<sup>th</sup>

1879 House 33ft high 50yds E by S.

S<sup>th</sup> Marys 100yds SE by S.



# RAINFALL AT Ambleside Brathay Vicarage

Lat..... Lon..... County of Westmoreland  
 ..... Rain Gauge, by..... Observer Rev. H. S. Callender

Diameter.....				5							
Height .....				61	3						
Altitude.....				150							
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			#	15.89	11.96	15.32	6.56	13.74	9.00	3.07	
February.....				1.45	5.41	2.76	8.81	7.61	5.72	5.25	
March.....				4.35	7.04	2.66	7.93	3.74	4.66	6.26	
April.....				.56	2.78	2.25	3.88	3.26	3.25	2.71	
May .....				3.56	1.02	3.73	.66	5.38	5.33	2.30	
June.....				4.40	2.50	5.51	4.64	5.36	3.98	6.90	
July .....				9.94	3.93	3.03	2.68	7.44	1.10	8.36	
August.....				9.13	11.78	5.11	5.31	8.17	6.91	7.71	
September.....				6.06	7.34	8.90	6.83	4.96	8.83	8.68	
October.....				11.35	19.14	6.98	6.04	14.54	7.86	3.92	
November.....				4.76	7.15	8.64	5.86	17.86	3.23	1.84	
December.....				5.89	5.60	7.72	11.87	9.71	1.70	7.28	
TOTALS.....				77.34	85.65	72.61	71.07	101.77	61.77	64.28	

1879 Shrubs 5ft high 6 yds S.W.  
 Brathay church 1/3 mile S.E.



RAINFALL AT *Langdale Woodlands*

Lat.....

Lon.....

County of.....

*Nestorland*

Rain Gauge, by.....

Observer

*E. Tucker**W 1834-1845 92.0*

Diameter .....		<i>.5</i>									
Height .....		<i>0.9</i>									
Altitude .....		<i>240</i>	<i>244</i>								
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			<i>19.75</i>	<i>20.09</i>	<i>13.06</i>	<i>17.58</i>	<i>6.50</i>	<i>17.17</i>	<i>10.51</i>	<i>3.54</i>	
February .....			<i>10.83</i>	<i>1.72</i>	<i>6.18</i>	<i>2.50</i>	<i>10.72</i>	<i>10.81</i>	<i>6.02</i>	<i>6.19</i>	
March .....			<i>7.60</i>	<i>4.80</i>	<i>8.27</i>	<i>3.19</i>	<i>9.94</i>	<i>4.90</i>	<i>6.29</i>	<i>7.76</i>	
April.....			<i>2.81</i>	<i>.62</i>	<i>3.46</i>	<i>2.82</i>	<i>4.61</i>	<i>4.40</i>	<i>3.91</i>	<i>3.46</i>	
May .....			<i>4.01</i>	<i>4.18</i>	<i>1.05</i>	<i>4.57</i>	<i>.77</i>	<i>6.43</i>	<i>6.60</i>	<i>2.68</i>	
June.....		<i>#</i>	<i>9.98</i>	<i>4.77</i>	<i>2.40</i>	<i>6.86</i>	<i>5.62</i>	<i>6.45</i>	<i>4.34</i>	<i>8.33</i>	
July .....		<i>7.05</i>	<i>5.18</i>	<i>11.62</i>	<i>4.42</i>	<i>4.32</i>	<i>3.38</i>	<i>10.27</i>	<i>1.65</i>	<i>10.66</i>	
August .....		<i>6.68</i>	<i>6.81</i>	<i>10.38</i>	<i>15.23</i>	<i>5.50</i>	<i>8.58</i>	<i>9.55</i>	<i>8.49</i>	<i>8.86</i>	
September.....		<i>4.12</i>	<i>15.63</i>	<i>7.19</i>	<i>10.53</i>	<i>10.54</i>	<i>6.95</i>	<i>5.29</i>	<i>10.35</i>	<i>8.92</i>	
October.....		<i>10.28</i>	<i>12.47</i>	<i>13.69</i>	<i>22.02</i>	<i>8.50</i>	<i>7.09</i>	<i>18.25</i>	<i>10.91</i>	<i>5.29</i>	
November.....		<i>4.15</i>	<i>13.35</i>	<i>4.99</i>	<i>8.36</i>	<i>10.01</i>	<i>6.64</i>	<i>19.16</i>	<i>4.52</i>	<i>2.27</i>	
December.....		<i>10.27</i>	<i>12.25</i>	<i>7.32</i>	<i>6.62</i>	<i>8.81</i>	<i>13.08</i>	<i>11.99</i>	<i>3.93</i>	<i>8.77</i>	
TOTALS .....			<i>120.67</i>	<i>91.37</i>	<i>101.60</i>	<i>85.20</i>	<i>83.88</i>	<i>124.67</i>	<i>77.52</i>	<i>76.73</i>	

*Railing 2ft 6in high round gauge 5ft distant*







RAINFALL AT *Ambleside Low Nook*

Lat. ....

Lon. ....

County of .....

*Westmorland*

..... Rain Gauge, by .....

Observer .....

*Rev. J. J. J. J.*

Diameter .....	.8	'									
Height .....	3	.									
Altitude .....	160	.									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	7.11	5.62	18.68								
February .....	7.42	10.71	8.82								
March .....	5.10	5.56	6.85								
April .....	3.04	4.36	3.12								
May .....	6.89	2.04	4.00								
June .....	2.18	1.76	7.67								
July .....	2.23	6.75	4.87								
August .....	2.36	6.95	6.37								
September.....	7.39	3.66	14.23								
October .....	7.90	9.89	12.31								
November.....	5.69	3.52	13.09								
December.....	3.50	10.72	11.05								
TOTALS .....	66.81	71.54	111.06								

C C C

see slip



# RAINFALL AT

Ambleside Hook Cottage

70

Lat. ....

Lon. ....

County of Westmorland

Rain Gauge, by

Observer E. Hind

Diameter ....						5					
Height ....						1					
Altitude ....						220	229				
Year ....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....						15.20	6.35	14.07	9.35	2.67	
February ....						2.48	9.26	7.41	5.03	5.75	
March .....						2.89	8.16	4.16	4.40	6.26	
April .....						2.12	3.83	3.77	3.19	2.53	
May .....						3.81	9.0	5.28	5.87	2.52	
June .....						6.06	4.58	5.01	4.36	7.48	
July .....						3.92	3.55	7.47	1.25	8.28	
August ....						4.93	5.80	8.65	7.22	7.76	
September ..						8.80	5.98	4.74	8.92	7.70	
October ....						7.10	5.86	14.12	7.91	3.69	
November ..						8.33	5.44	16.06	3.70	1.93	
December ..						7.32	12.00	9.93	3.87	7.47	
TOTALS ..						72.96	71.71	100.67	65.07	64.04	

1876 Gauge slightly sheltered but no better situation attainable

S<sup>t</sup> Marys church ambleside  $\frac{1}{4}$  mile S.



# RAINFALL AT *Ambleside Lestketh Howe*

Lat.....

Lon.....

County of...*Westmorland*...

Rain Gauge, by..... Observer *Frank M. Jones Esq.*

Diameter .....	5										
Height .....	1.6				2.6						
Altitude .....	175										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	7.46	6.35	19.69	18.07	12.85	17.50	6.31	15.98	9.81	2.90	11.692
February .....	6.31	9.94	9.17	1.54	6.13	2.75	9.14	7.58	6.02	5.71	6.429
March .....	5.20	5.47	7.14	4.66	7.51	3.22	8.35	3.76	4.48	6.32	5.611
April .....	2.60	4.36	3.22	.77	3.93	2.25	3.95	2.33	3.16	3.09	2.966
May .....	6.22	2.25	4.12	3.67	1.29	3.88	.83	5.38	6.04	2.17	3.580
June .....	3.36	1.86	8.22	4.74	2.81	6.04	4.73	5.24	4.60	7.23	4.883
July .....	2.91	6.49	4.89	10.16	4.30	3.76	3.05	7.80	1.22	7.30	5.188
August .....	2.41	7.20	6.31	9.40	13.51	5.14	6.27	8.57	6.96	8.50	7.427
September.....	7.29	3.90	14.26	7.33	9.28	9.23	6.40	4.76	9.29	8.45	8.019
October .....	13.79	10.74	12.53	12.46	20.14	7.69	5.96	14.68	8.40	3.68	11.007
November.....	5.64	3.57	13.09	5.34	8.05	8.77	5.19	17.24	3.52	1.96	7.237
December.....	3.31	10.85	11.05	6.86	5.94	7.55	11.83	10.32	2.83	7.78	7.832
TOTALS .....	66.50	72.98	113.69	85.00	95.74	77.73	72.01	103.64	66.33	65.09	81.871

1874 "The gauge overflowing on the 6<sup>th</sup> Oct" but I do not think much was lost"

Ambleside  $\frac{1}{4}$  mile S.W.



# RAINFALL AT *Loughbegrigg Fell Top of*

Lat..... Lon..... County of *Westmorland*

Rain Gauge, by..... Observer *E B W Balne Esq*

Diameter .....	8										
Height .....	1										
Altitude .....	1030										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	6.50	6.25	17.50								
February .....	7.50	10.50	9.75								
March .....	4.25	6.00	6.50								
April .....	2.50	4.75	2.50								
May .....	6.25	1.75									
June .....	2.00	2.75									
July .....	2.25	(7.00)									
August .....	2.50	5.75									
September.....	6.25	3.50									
October.....	+14.00	9.00									
November.....	5.75	3.25									
December.....	2.50	10.25									
TOTALS .....	62.25	(70.75)									

C C C



RAINFALL AT *Grassmere High Close*

Lat.....

Lon.....

County of.....

*Westmorland*

Rain Gauge, by.....

Observer

*E B W Palmer Esq*

Diameter .....	.8	.						.	.		
Height .....	.9	.						.	.		
Altitude .....	553	.						.	.		
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	7.30	6.97	18.01	17.10	11.35	15.88	5.76	14.70	9.02	3.73	10.982
February .....	7.63	10.69	9.73	1.55	5.42	2.11	9.57	8.50	5.18	5.19	6.537
March .....	4.20	6.10	6.93	4.18	6.71	2.87	8.15	4.12	4.67	6.50	5.443
April .....	3.14	4.48	2.73	.67	3.02	2.45	4.24	3.98	3.90	3.18	3.179
May .....	7.07	2.05	3.41	3.81	1.04	4.17	.72	5.57	6.19	2.21	3.624
June .....	2.26	2.58	8.34	4.26	2.45	6.40	5.17	5.21	3.91	7.71	4.829
July .....	1.79	6.58	4.83	11.00	3.95	4.14	3.37	9.03	1.23	9.75	5.567
August .....	2.57	5.85	6.39	9.09	13.30	5.16	8.15	8.59	7.73	7.98	7.481
September.....	7.11	3.73	12.76	6.61	9.65	8.99	6.68	4.31	8.63	7.76	7.623
October .....	15.02	8.97	11.29	11.59	17.40	7.43	6.38	15.65	9.19	4.48	10.740
November.....	6.35	3.61	11.94	4.88	7.85	8.85	6.20	16.43	3.64	1.98	7.173
December.....	3.45	11.16	10.93	5.68	5.89	7.96	12.86	7.84	3.42	7.48	7.867
TOTALS .....	67.89	72.77	107.29	80.42	88.03	76.41	77.25	105.93	66.71	67.95	81.065







RAINFALL AT *Tebay*

70

Lat. .... Lon. .... County of *Westmoreland*

Rain Gauge, by ..... Observer *Rev. E. Holme*

Diameter. ....	<i>5</i>										
Height. ....	<i>3. 6</i>										
Altitude. ....	<i>666</i>										
Year .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January .....									<i>7.87</i>	<i>1.41</i>	
February. ....									<i>3.81</i>	<i>4.37</i>	
March. ....									<i>2.83</i>	<i>5.43</i>	
April .....									<i>2.14</i>	<i>2.18</i>	
May. ....									<i>4.80</i>	<i>2.16</i>	
June .....									<i>3.51</i>	<i>6.21</i>	
July. ....									<i>1.64</i>	<i>6.03</i>	
August .....									<i>4.48</i>	<i>6.04</i>	
September....									<i>4.73</i>	<i>4.20</i>	
October .....									<i>6.99</i>	<i>2.45</i>	
November ....									<i>2.98</i>	<i>1.71</i>	
December ....									<i>3.33</i>	<i>4.38</i>	
TOTALS ....									<i>49.11</i>	<i>46.57</i>	



RAINFALL AT *Patterdale Hall*

Lat. ....

Lon. ....

County of ...

*Westmorland*

Rain Gauge, by. ....

Observer ...

*Mr Sinclair**1877 H. Hurt*

Diameter .....	6	7	6								
Height .....	2		1-6		2		1-6	1	1-6		
Altitude .....	500		382		490						
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	12.34	9.10	20.32	26.03	10.30	15.15	5.00		8.75	2.18	
February .....	12.06	8.25	13.48	3.95	7.10	2.49	8.59	(3000)	5.81	5.50	
March .....	4.43	8.83	6.95	40	7.30	3.42	8.25	*	4.65	6.75	
April .....	1.99	3.31	2.21	1.20	5.74	1.45	2.30	4.20	3.24	3.09	28.73
May .....	8.49	2.10	4.41	2.00	2.10	4.50	3.10	7.52	9.20	2.34	4.576
June .....	3.10	2.36	5.89	3.40	1.83	6.90	3.75	7.08	4.43	9.09	4.783
July .....	6.69	6.39	3.94	8.80	2.34	5.30	4.41	9.23	1.43	8.70	5.123
August.....	2.77	7.08	5.31	9.10	11.16	5.25	5.83	9.71	7.21	9.67	7309
September.....	9.43	3.86	11.33	6.64	13.05	7.70	7.23	5.75	9.11	9.64	8374
October.....	18.97	9.36	12.14	7.35	22.45	7.45	6.00	15.71	11.73	2.94	114.10
November.....	7.28	2.48	13.55	6.82	8.75	6.69	9.50	20.81	4.04	2.18	82.10
December.....	4.32	13.27	16.77	6.43	2.50	9.38	11.41	10.43	5.21	7.99	87.71
TOTALS .....	85.87	76.39	116.30	82.12	94.62	75.68	75.37	(120.44)	74.81	70.07	(87.167)

1877 Jan - April observations lost \* Roughly  
estd from friendside (Manchester 1915)



# RAINFALL AT Patterdale Greenside Mine

70

Lat.....

Lon.....

County of *Westmoreland*

Rain Gauge, by.....

Observer *M. Taylor*

Diameter.....			7								
Height.....			1.6								
Altitude.....			1000								
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			<sup>#</sup> 22.75	28.05	12.85	20.00	6.10	19.03	11.10	1.98	
February.....			14.35	4.00	7.72	2.22	10.08	9.84	6.65	5.32	
March.....			7.30	.70	8.80	4.77	9.02	5.07	5.53	7.26	
April.....			3.20	1.30	3.85	2.25	4.95	4.44	2.88	3.43	
May.....			6.25	2.10	3.00	5.40	1.25	8.53	9.39	2.40	
June.....			9.75	3.45	2.65	7.40	6.30	8.02	4.51	8.81	
July.....			4.68	10.00	4.32	4.50	4.55	11.16	1.77	10.71	
August.....			8.80	10.50	15.85	5.50	7.64	11.15	7.46	11.27	
September.....			12.50	8.05	13.13	9.88	8.15	6.22	12.37	11.29	
October.....			16.46	8.00	26.30	8.15	4.75	21.28	14.17	4.22	
November.....			14.83	7.40	6.25	7.72	6.13	25.14	4.91	2.47	
December.....			17.32	8.36	4.20	12.13	15.63	10.96	5.15	9.68	
TOTALS.....			138.19	91.91	108.92	89.92	84.55	140.84	85.89	78.84	

Patterdale church 2 miles S.E.



# RAINFALL AT *Ullswater Sharrow Bay*

70

Lat.....

Lon.....

County of

*Westmorland*

Rain Gauge, by.....

Observer .....

Diameter .....	8	0									
Height .....	1.6	1.6									
Altitude .....	500.	500.0									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	4.25	4.45	9.75	10.25	3.50	6.50	1.00	8.00	2.25	.25	5.020
February .....	5.00	2.45	7.50	1.25	3.75	.50	4.50	2.50	2.75	3.75	3.365
March .....	1.00	3.90	2.75	2.50	2.75	2.00	3.50	2.75	1.50	3.50	2.615
April.....	1.00	2.00	1.50	.00	3.50	1.00	3.00	3.00	2.50	1.75	1.925
May .....	4.25	1.00	2.00	1.40	1.25	2.25	.50	4.00	6.50	1.25	2.440
June.....	1.10	2.75	3.75	1.60	1.25	4.00	2.50	4.00	2.25	5.00	2.820
July .....	.90	2.75	3.50	4.75	2.50	2.50	2.00	4.00	.75	4.50	2.815
August.....	2.00	3.00	4.00	4.00	6.50	2.25	4.00	5.75	3.50	4.75	3.975
September.....	3.50	3.25	5.50	1.60	7.25	4.50	3.25	4.75	5.00	4.00	4.260
October.....	10.50	4.90	7.25	3.90	10.75	4.00	3.75	5.00	6.00	1.25	5.730
November.....	3.75	.05	7.25	2.25	3.25	4.00	3.00	10.75	2.50	1.00	3.860
December.....	1.85	6.00	9.12	1.75	2.75	4.00	8.50	3.00	2.75	3.00	4.272
TOTALS .....	39.10	37.00	63.87	35.25	49.00	37.50	39.50	57.50	38.25	34.00	43.097

1871 Big & other double for not measured till 1st of Feb

1870 Jan - April gauge emptied monthly, afterwards only at end of year gauge having been found to have a scale error due to indentation of the float -

1873 The small g: registered most this year viz 40.21

1878 The large g: & small g: are close together yet the small one always registers more than the large one



# RAINFALL AT *Ullswater Sharrow Bay*

70

Lat.....

Lon.....

County of *Westmorland*

Rain Gauge, by.....

Observer *Anthony Parkes Esq*

*Monthly*

Diameter .....	5	.					.	.	.	.	
Height .....	7	.					.	.	.	.	
Altitude .....	500	.					.	.	.	.	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.41	2.33	11.32	12.50	4.86	5.20	2.15	9.15	3.40	1.07	5.439
February .....	5.98	2.50	7.75	1.40	4.15	9.2	5.15	3.32	2.65	4.05	3.787
March .....	4.11	5.12	3.09	2.83	3.24	1.90	4.40	2.10	2.38	4.06	3.323
April .....	1.84	2.20	2.10	.31	3.76	1.35	2.94	3.68	2.46	1.93	2.257
May .....	4.45	1.30	2.40	1.65	1.58	2.47	.94	4.46	6.50	1.56	2.731
June .....	1.20	1.95	4.10	1.90	1.30	3.32	2.19	3.75	2.55	4.65	2.691
July .....	5.53	3.20	3.25	3.80	2.00	2.78	2.30	5.10	.90	4.15	2.801
August .....	2.85	3.33	4.70	4.50	8.00	2.71	4.22	6.24	4.44	5.15	4.574
September.....	4.66	4.08	5.80	2.18	8.25	5.50	3.86	5.30	4.06	4.30	4.799
October .....	10.56	5.19	7.80	4.05	10.50	4.75	4.28	7.10	6.00	1.60	6.183
November.....	3.74	1.35	7.45	2.55	2.95	4.62	3.20	9.72	2.90	1.34	3.982
December.....	2.77	6.30	8.00	2.54	2.60	4.60	8.75	4.16	3.26	3.44	4.642
TOTALS .....	48.10	38.85	67.76	40.21	53.19	40.12	44.38	64.08	41.10	37.30	47.509

1874 The two gauges stand very near each other still they continue to differ in the quantity of rain the small gauge uniformly giving more than the larger

Barton church 3½ miles E



RAINFALL AT *Ullswater Swarthfell*

Lat..... Lon..... County of..... *Westmorland*  
..... Rain Gauge, by..... Observer *H. J. Symons Esq.*

Diameter .....	<i>.8</i>	.						.	.	.	
Height .....	<i>/</i>	.						.	.	.	
Altitude .....	<i>1000</i>	.						.	.	.	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>5.75</i>	<i>3.25</i>	<i>10.50</i>	<i>12.50</i>	<i>5.00</i>	<i>8.25</i>	<i>2.00</i>	<i>10.50</i>	<i>3.75</i>		
February .....	<i>6.50</i>	<i>4.00</i>	<i>7.50</i>	<i>1.50</i>	<i>4.25</i>	<i>.50</i>	<i>6.00</i>	<i>4.00</i>	<i>3.00</i>		
March .....	<i>1.50</i>	<i>4.25</i>	<i>3.50</i>	<i>3.00</i>	<i>3.25</i>	<i>1.75</i>	<i>4.75</i>				
April .....	<i>2.50</i>	<i>2.50</i>	<i>2.25</i>	<i>.50</i>	<i>4.00</i>	<i>1.50</i>	<i>3.25</i>				
May .....	<i>5.25</i>	<i>1.75</i>	<i>2.00</i>	<i>1.25</i>	<i>1.50</i>	<i>2.75</i>					
June.....	<i>1.25</i>	<i>2.25</i>	<i>4.25</i>	<i>2.25</i>	<i>1.75</i>	<i>3.75</i>					
July .....	<i>.75</i>	<i>4.00</i>	<i>4.00</i>	<i>4.25</i>	<i>2.50</i>	<i>2.50</i>	<i>2.50</i>	<i>6.25</i>	<i>.50</i>		
August.....	<i>2.50</i>	<i>2.00</i>	<i>5.25</i>	<i>4.75</i>	<i>8.75</i>	<i>2.00</i>	<i>4.50</i>	<i>6.75</i>	<i>4.50</i>	<i>6.50</i>	
September.....	<i>3.50</i>	<i>3.75</i>	<i>6.50</i>	<i>2.50</i>	<i>9.50</i>	<i>4.75</i>	<i>3.50</i>				
October.....	<i>11.75</i>	<i>6.50</i>	<i>9.00</i>	<i>3.50</i>	<i>11.75</i>	<i>4.50</i>	<i>3.75</i>				
November.....	<i>4.25</i>	<i>.75</i>	<i>8.50</i>	<i>2.75</i>	<i>2.75</i>	<i>4.50</i>	<i>3.25</i>				
December.....	<i>2.75</i>	<i>0.75</i>	<i>8.00</i>	<i>3.75</i>	<i>2.50</i>	<i>5.75</i>	<i>10.50</i>	<i>4.50</i>	<i>3.75</i>	<i>3.00</i>	
TOTALS .....	<i>48.25</i>	<i>43.75</i>	<i>71.25</i>	<i>42.50</i>	<i>57.50</i>	<i>42.50</i>	<i>48.50</i>	<i>—</i>	<i>45.25</i>	<i>43.00</i>	

*C C C*  
*1877 Nov? Gauge found empty*



RAINFALL AT *Ravenstonedale*

Lat. ....

Lon. ....

County of *Westmorland*Rain Gauge, by *Casella* Observer *J. Barnes*

Diameter .....		. 5									
Height .....		12½	1.1		3.1						
Altitude .....			835							826	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			12.91	13.90	6.73	7.87	2.59	7.53	4.06	1.07	
February .....			6.99	1.17	3.09	.86	5.74	3.37	1.81	2.05	
March .....			5.93	3.65	4.34	1.45	4.98	2.27	1.78	3.18	
April.....			3.60	.64	3.52	1.65	2.53	2.35	1.87	1.70	
May .....			9.56	1.63	2.50	2.14	1.13	2.88	4.40	1.08	
June.....			4.71	2.91	1.78	3.75	3.28	3.21	3.17	4.79	
July .....			5.23	4.55	2.24	2.85	2.46	4.24	1.01	4.72	
August.....		#	5.52	4.18	5.44	2.87	3.27	5.65	4.47	4.65	
September.....			4.15	8.94	2.91	6.30	4.96	4.54	4.06	4.22	2.75
October.....			5.58	9.57	4.49	9.79	2.63	3.36	6.08	5.34	1.84
November.....			1.76	10.30	3.61	2.70	4.58	2.95	7.72	2.60	1.60
December.....			7.15	6.54	2.81	2.59	4.62	6.38	3.62	1.80	3.18
TOTALS .....	(38.00)	(39.00)	83.80	45.45	51.02	40.23	43.21	52.98	36.53	32.61	(46.283)

1873 The Rev Mr Barnes took the gauge up to his death  
 16<sup>th</sup> Feby at the Vicarage & I measured what was in  
 the bottle of 21<sup>st</sup> March that is what had fallen  
 between 16<sup>th</sup> Feby & 21<sup>st</sup> March

1870 & 1871 estimated from Seaburgh Thorne  
 & Kirkby Stephen.



RAINFALL AT *Kirkstone Pass*

Lat.....

Lon.....

County of.....

*Westmorland*

Rain Gauge, by.....

Observer

*J. J. Symons Esq.*

Diameter .....	.5										
Height .....	/										
Altitude .....	1500				1500						
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	9.70	7.79	19.16	18.43	19.72	23.82	8.00	17.25	13.05	2.68	13.960
February .....	10.95	17.74	11.50	1.50	6.45	4.30	11.49	13.54	7.52	5.40	9.039
March .....	3.37	7.81	9.57	3.82	10.16	2.84	10.94	6.01	6.98	7.95	6.945
April .....	3.66	7.20	3.58	1.26	4.73	3.02	4.53	3.32	4.63	5.44	4.137
May .....	9.22	2.50	4.75	5.26	3.02	5.29	1.79	6.71	7.98	3.87	5.039
June .....	4.09	4.17	10.25	7.17	3.75	8.02	6.72	7.49	5.30	10.52	6.748
July .....	1.96	11.05	6.91	18.04	5.40	6.09	4.10	15.96	1.64	11.78	7.793
August .....	2.42	0.19	8.23	13.29	14.01	7.54	8.03	5.92	10.03	9.64	8.730
September.....	10.40	6.98	14.44	7.46	12.50	10.84	7.86	4.51	10.88	8.20	9.407
October.....	10.97	11.84	11.70	9.24	22.66	10.60	6.51	19.10	9.39	7.18	11.919
November.....	8.73	4.57	10.96	11.35	9.33	10.07	7.04	18.70	2.63	4.32	8.770
December.....	6.67	8.37	16.08	11.28	3.60	9.67	13.75	12.56	4.35	5.87	9.220
TOTALS .....	82.14	98.21	127.19	103.10	115.33	102.10	90.76	131.07	84.38	82.85	101.707



# RAINFALL AT Kirkstone Pass

Lat. ....

Lon. ....

County of Westmorland

Rain Gauge, by .....

Observer M<sup>r</sup> J. Nicholson

Large Gauge

Diameter . . .											
Height . . .											
Altitude . . .											
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .						23.75					
February . . .						4.25					
March . . . . .						2.75					
April . . . . .						3.25					
May . . . . .						5.25					
June . . . . .						8.00					
July . . . . .						6.00					
August . . . . .						7.50					
September . . .						11.50					
October . . . . .						10.50					
November . . .											
December . . .											
TOTALS . . .											

1875 The large gauge is out of order in fact it always will be or any other made of the same material 1874 No record of the large gauge but it generally registered rather less than the small one.







RAINFALL AT *Grasmere Easedale Tarn*

Lat. ....

Lon. ....

County of *Crestmorland*Rain Gauge, by. .... Observer *G. J. Symons Esq.*

Diameter .....	8											
Height .....	1		1	1								
Altitude .....	1175											
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	8.50	7.75	10.25	21.00	14.00	24.00	7.75	18.25	14.00	3.00	137.50	
February .....	10.50	11.75	11.75	2.00	5.50	2.50	11.50	10.00	7.75	6.00	79.25	
March .....	4.50	7.00	9.00	3.75	9.50	3.00	9.25	5.50	5.00	8.00	64.50	
April.....	4.00	5.00	3.25	1.00	3.25	2.50	6.00	4.00	3.75	2.75	35.50	
May .....	9.50	2.25	4.75	4.50	1.75	4.00	1.00	6.25	7.00	2.00	43.00	
June.....	3.25	2.75	9.00	5.75	2.00	8.00	5.50	6.75	4.00	9.00	56.00	
July .....	7.25	10.75	7.00	12.00	5.50	4.25	5.00	11.00	1.50	10.00	68.25	
August.....	4.00	7.50	9.00	13.50	15.50	6.75	10.00	10.50	8.00			
September.....	9.75	5.00	17.75	10.25	13.50	11.25	7.75	6.00	10.50			
October.....	21.00	11.25	15.50	15.00	23.00	8.50	7.00	17.50	14.75	6.50	140.00	
November.....	7.00	5.00	14.00	8.00	8.75	9.75	7.25	21.50	3.50	2.75	87.50	
December.....	5.25	16.00	12.25	7.25	5.50	9.75	13.50	12.75	4.75	8.00	95.00	
TOTALS .....	88.50	92.00	132.50	104.00	107.75	94.25	91.50	130.00	84.50			

C C C







# RAINFALL AT Kirkby Stephen

Lat..... Lon..... County of... Westmorland

Rain Gauge, by..... Observer J. Mason Esq

N 1881-1915 42.3

Diameter .....	5							5			
Height .....	1							1			
Altitude .....	174	574.0		574				74		574	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	4.09	2.34	7.10	9.08	5.63	6.41	2.35	7.98	3.68	1.02	4.968
February .....	3.00	3.26	4.97	.64	2.85	.91	4.71	3.06	2.31	2.48	2.819
March .....	1.65	2.34	3.92	2.29	3.98	1.16	4.68	3.03	2.20	2.64	2.789
April.....	7.18	2.68	3.21	.69	3.13	1.29	1.95	2.12	2.16	1.47	1.988
May .....	2.24	1.00	2.46	1.54	2.07	1.73	1.10	2.38	4.83	1.28	2.063
June.....	1.52	3.57	5.05	1.59	1.14	3.04	3.18	2.73	3.55	4.38	2.975
July .....	2.46	6.50	3.97	3.39	1.55	3.14	2.41	3.20	.77	4.16	3.155
August.....	1.81	2.56	4.76	3.24	4.83	2.92	3.04	6.22	4.93	5.27	3.958
September.....	2.33	3.64	4.92	2.23	5.54	5.26	4.56	3.13	3.66	2.58	3.785
October.....	7.36	4.30	7.23	3.77	8.71	3.42	2.93	6.28	5.23	1.55	5.078
November.....	3.26	1.19	5.74	2.30	3.20	4.57	3.34	7.06	2.29	1.70	3.468
December.....	2.87	3.58	5.79	1.50	2.88	3.66	7.26	3.38	2.47	2.96	3.635
TOTALS .....	33.77	36.76	59.12	32.26	45.51	37.51	41.51	50.57	38.08	31.49	40.678

1870 July 9<sup>th</sup> the whole of the rain (1.80) fell between 11.30 AM & 1.0 PM the River Eden rose 3 feet in 20 minutes & subsided rapidly after doing much damage



# RAINFALL AT *Great Strickland [Penrith]*

70

Lat..... Lon..... County of *Westmorland*

..... Rain Gauge, by..... Observer .....

Diameter .....	. 5	.					.	.	.		
Height .....	1 . 6	.	1 .				.	.	.		
Altitude .....	650.0	.	650 <sup>ft</sup>				.	.	.		
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	4.14	3.46	8.86	8.72	5.02	6.14	1.70	7.13	3.19		
February .....	4.19	3.65	9.47	1.15	2.69	.62	3.17	3.27	2.14		
March .....	1.29	6.16	3.32	2.14	3.02	1.41	4.20	2.15	1.62		
April.....	1.49	2.26	.93	.26	3.16	.80	2.40	2.79	2.15		
May .....	2.70	1.35	1.56	1.42	1.86	2.04	.95	2.52	2.72		
June .....	1.56	2.73	2.84	1.30	1.60	3.35	2.99	3.52	2.00		
July .....	.71	3.35	4.09	3.39	1.50	3.79	2.49	5.29	.80		
August.....	2.15	2.59	3.92	3.58	5.20	2.05	4.00	6.75	4.70		
September.....	3.44	3.29	5.57	2.18	5.97	4.77	3.92	2.76	5.01		
October.....	8.12	4.35	7.06	3.72	9.43	3.51	3.67	6.00	4.88		
November.....	2.62	1.24	5.92	2.03	2.84	3.41	3.12	7.88	3.22		
December.....	2.90	3.69	5.62	1.64	3.05	3.12	6.79	3.63	3.84 <sup>#</sup>		
TOTALS .....	35.31	38.12	59.16	31.48	45.34	35.01	39.40	53.69	36.27		

1875 Gauge in some degree sheltered by buildings



# RAINFALL AT *Lowther Castle* [*Pennrith*]

Lat..... Lon..... County of... *Westmorland*  
 ..... Rain Gauge, by..... Observer... *M<sup>r</sup> W. Shand*

Diameter.....						8	.	.	.	.	
Height.....					3.6	4	3.6	.	.	.	
Altitude.....					750		.	.	.	.	
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....					4.74	6.57	1.41	7.35	2.63	.87	
February.....					3.01	.69	4.00	2.91	1.85	2.05	
March.....					2.82	1.39	4.04	2.17	2.04	2.83	
April.....					3.05	.83	1.60	2.17	1.91	1.94	
May.....					1.48	1.86	.78	2.36	4.58	1.85	
June.....					1.56	4.31	2.10	1.56	2.30	3.06	
July.....					1.62	3.27	2.07	4.07	1.03	5.17	
August.....					4.48	1.94	4.23	2.45	3.68	7.04	
September.....					5.29	2.91	4.23	4.56	4.69	2.49	
October.....					9.67	2.97	3.58	6.70	4.81	1.34	
November.....					2.75	2.45	3.36	8.44	2.46	1.38	
December.....					2.79	2.04	6.69	3.34	2.92	2.88	
TOTALS.....		(158.00)			43.26	31.23	38.09	48.08	34.90	32.90	38.646

1870-1873 computed from Great Strickland  
 & Brougham Hall



# RAINFALL AT *Brougham Hall [Penrith]*

Lat..... Lon..... County of... *Westmorland*  
 Rain Gauge, by..... Observer *W. Geo Campbell*  
*1877 916 a lodge*

Diameter .....	.5	:	6				.5	5	.	.	
Height .....	1	.	5	5			4	5	5	.	.
Altitude .....	470	.					470	.	.	.	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	3.54	2.74	6.21	7.36	3.32	5.43	1.12		2.68	.98	
February .....	3.69	2.71	4.98	1.00	2.00	.22	2.64		1.10	1.83	
March .....	-.85	3.06	1.54	1.32	2.24	1.21	3.73		2.15	1.97	
April .....	1.00	2.17	1.43	.57	2.73	.79	2.11		1.68	1.26	
May .....	3.28	1.08	2.92	1.64	1.42	.94	.99		3.94	1.34	
June .....	1.92	2.72	2.30	1.54	1.25	3.43	2.40		2.40	3.62	
July .....	-.85	3.93	5.45	2.37	2.91	3.42	1.70		.51	4.02	
August .....	3.21	2.05	3.29	3.55	4.13	1.78	4.99		4.28	3.59	
September.....	3.57	2.80	4.39	1.33	5.57	3.86	1.18		3.71	1.87	
October.....	7.49	3.30	5.19	4.08	5.74	2.49	4.30		3.98	1.07	
November.....	2.63	1.23	7.32	1.62	2.50	2.42	3.95	6.13	2.88	1.32	
December.....	1.44	3.04	4.61	1.48	2.34	2.67	5.42	2.82	2.49	2.33	
TOTALS .....	33.47	30.83	49.63	27.86	36.15	28.66	34.53		31.80	25.20	

1877 M<sup>r</sup> Lodge only came to the gardens in Nov<sup>r</sup>  
 1878 Bushes 5ft high, 6ft distant



RAINFALL AT *Haweswater Mardale Green*

Lat..... Lon..... County of..... *Nestorland*  
..... Rain Gauge, by..... Observer *G. J. Symons Esq*

Diameter .....	8	.									
Height .....	1	.									
Altitude .....	800	.									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	12.25	7.75	21.00	25.00	12.75	17.00	6.00	18.00	9.00	2.00	
February .....	8.00	10.00	13.00	1.25	6.25	4.00	11.00	8.00		5.00	
March .....	5.00	7.25	8.75	3.75	7.50	3.00	10.00	4.00		9.00	
April .....	3.25	5.00	3.25	.50	3.75	3.00	10.00	4.00		4.00	
May .....	8.50	1.75	5.25	2.25	2.00	3.50	1.00	7.00		3.00	
June .....	2.75	3.00	7.00	5.50	4.00	8.00	2.00	6.50		2.50	
July .....	7.00	9.50	6.25	10.00	3.00	5.00	4.25	9.50	.00	7.00	
August.....	2.50	8.25	7.25	9.50	11.25	5.50	3.00	10.00	6.50	9.50	
September.....	6.50	4.75	12.00	6.50	11.50	8.00	6.00	6.50		9.00	
October.....	19.00	10.50	15.00	10.25	23.50	7.50	6.25	} 36.00		8.00	3.00
November.....	8.00	2.50	13.75	6.00	5.00	7.00	6.00			5.00	2.00
December.....	4.50	13.15	12.75	6.25	10.00	8.00	13.00	9.00		6.50	
TOTALS .....	81.25	83.40	125.25	86.75	106.50	79.50	78.50	118.50	*	62.50	

1878 July only one slight shower during the month

\* Mr J. Parry in a letter 19. March 1919 gives total as 78.64



# RAINFALL AT *Shap Copy Hill*

70

Lat.....

Lon.....

County of..

*Westmorland*

Rain Gauge, by.....

Observer...

*A. Hogarth*

Diameter.....					5						
Height .....					1						
Altitude.....					874						
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....						10.90	4.15	12.81	4.74	1.50	
February.....						1.59	7.05	4.66	2.99	4.30	
March.....						2.29	5.34	1.98	2.16	5.36	
April.....						1.55	2.83	3.01	2.92	1.98	
May .....						2.71	.86	4.36	5.62	.97	
June.....						4.24	4.53	4.42	2.63	6.19	
July .....					#1.82	3.27	2.10	5.78	.73	5.19	
August.....					6.52	2.83	4.01	6.18	3.99	5.66	
September.....					6.56	5.77	4.73	4.49	5.88	4.95	
October.....					14.82	4.72	5.05	8.77	6.62	1.85	
November.....					2.94	3.84	4.01	13.12	3.34	1.40	
December.....					3.48	7.14	10.55	5.43	3.71	5.30	
TOTALS .....						50.85	55.21	75.01	45.33	44.65	

1874 Gauge moved from Shap Greyhound Gardens in July



# RAINFALL AT *Flaweswater Measandbecks*

Lat..... Lon..... County of *Westmorland*

Rain Gauge, by..... Observer *G. J. Symon*

Diameter .....	.8										
Height .....	1										
Altitude .....	<del>200</del>										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.50	3.00	15.75	16.50	6.25	10.50	2.50	12.25	3.75	.75	7.675
February .....	6.00	5.25	7.50	1.00	3.75	.50	5.50	2.75	3.50	6.75	4.250
March .....	2.25	3.00	4.25	2.75	3.50	2.00	4.25	2.50	1.50	2.75	2.875
April .....	2.00	2.75	2.50	.25	3.25	1.50	3.50	2.75	2.25	1.25	2.200
May .....	4.50	1.00	2.75	1.75	1.50	2.25	.75	4.25	6.00	2.50	2.725
June .....	1.50	2.00	3.75	2.50	1.75	2.00	3.50	3.75	3.50	5.00	2.925
July .....	1.50	5.50	5.25	5.25	1.75	3.00	2.25	5.50	1.00	4.75	3.475
August .....	2.00	4.75	4.75	5.25	7.50	3.25	4.25	7.50	4.75	6.75	5.075
September.....	5.00	4.25	8.25	3.00	8.00	5.50	5.00	3.75	5.75	6.25	5.475
October.....	<sup>+</sup> 12.00	7.25	10.25	5.50	14.75	5.50	5.00	9.50	7.25	.75	7.775
November.....	4.50	2.00	8.50	3.25	2.50	5.50	4.00	(9.25)	3.00	2.25	4.475
December.....	3.25	7.50	8.75	3.25	2.25	6.00	10.00	5.25	3.25	4.00	5.350
TOTALS .....	49.00	48.25	82.25	50.25	56.75	47.50	50.50	(69.00)	45.50	43.75	4.275

1870 Jan 1<sup>st</sup> Gauge moved about  $\frac{1}{2}$  mile to N and to exposed position on SSW slope of a hill

1877 Nov 2.25 in only was found in the gauge but the observer thought it had been meddled with so the amount for the month was computed



RAINFALL AT *Reagill*

Lat..... Lon..... County of *Westmorland*  
 ..... Rain Gauge, by..... Observer *W. Wilkinson*

Diameter .....		. 8	6	. 8							
Height .....		0 . 6									
Altitude .....		890									
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			10.20	10.80	6.78	6.81	2.08	8.71	3.30	.50	
February .....			5.34	.46	3.57	.91	4.41	3.00	2.34	1.71	
March .....		# 3.81	3.83	2.86	3.16	1.59	3.42	2.01	.59	3.18	
April.....		2.60	2.22	.34	3.88	.93	1.78	2.91	2.10	1.65	
May .....		1.68	2.61	1.29	1.88	2.05	.78	3.20	4.85	1.22	
June.....		2.70	3.93	1.39	1.57	3.74	3.49	3.61	2.87	5.51	
July .....		5.83	3.47	4.01	1.25	3.24	2.02	4.92	1.85	4.72	
August.....		3.48	4.54	3.79	5.12	2.72	3.78	5.72	4.34	4.71	
September.....		2.96	5.29	1.75	5.08	5.19	4.69	3.65	4.63	3.63	
October.....		4.46	7.62	3.70	10.11	3.53	3.86	6.77	5.23	1.40	
November.....		1.02	6.60	1.97	2.75	3.53	3.38	8.69	3.08	.74	
December.....		6.77	6.16	2.64	3.25	4.95	7.61	3.60	2.32	3.27	
TOTALS .....			61.81	35.00	48.40	39.19	41.30	56.79	37.50	32.24	

C C

1878 Trees about 6ft high &amp; 30ft distant

79 " " 9 " " &amp; 30 " "

Crosby Ravensworth church 2 miles S.E.



# RAINFALL AT *Millburn*

70

Lat. ....

Lon. ....

County of

*Westmorland*

Rain Gauge, by

Observer

*Miss M. Robinson*

Diameter . . .									.5		
Height . . .									1.		
Altitude . . .											
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .										1.25	
February . .										1.52	
March . . . .										1.40	
April . . . . .										1.40	
May . . . . .										1.91	
June . . . . .										3.78	
July . . . . .										4.38	
August . . . .									<del>4</del> 4.76	4.22	
September . .									3.56	2.05	
October . . . .									3.10	1.33	
November . .									3.31	1.58	
December . .									1.99	1.87	
TOTALS . .										26.69	

1878 Trees 18ft high 24ft distant

1879 " 18ft " 31ft N.E.

Millburn church  $\frac{1}{4}$  mile S.



RAINFALL AT *Shap, Crosby Ravensworth*

Lat..... Lon..... County of *Nesmondland*  
 Rain Gauge, by..... Observer *Rev. G. J. Weston*

Diameter.....	.8	.	.	.	.	.	.	.	.	.	.
Height.....	.5	.	1.	.	.	.	.	.	.	.	.
Altitude.....	600.	.	.	.	.	.	.	.	.	.	.
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.60	4.15	11.74	12.29	6.49	9.19	2.03	10.25	4.71		
February.....	5.01	6.52	5.99	1.31	3.95	1.61	5.48	3.66	2.57		
March.....	2.53	3.91	4.22	2.93	3.85	1.90	4.78	2.33	.97		
April.....	1.65	2.90	2.36	.37	4.34	1.29	2.42	3.05	1.39		
May.....	4.07	1.48	2.72	1.68	2.12	2.34	.91	3.22	5.31		
June.....	1.70	2.95	3.77	1.48	1.61	4.63	3.78	4.02	2.70		
July.....	.87	8.20	3.27	4.50	1.25	3.26	1.50	6.59	1.44		
August.....	2.25	4.58	4.31	4.11	6.32	3.17	2.79	5.61	4.42		
September.....	4.45	3.31	6.40	2.19	5.09	5.53	5.06	3.84	4.29		
October.....	†10.51	5.39	7.29	4.21	10.93	3.74	4.04	7.19	5.91		
November.....	5.10	2.04	7.78	2.66	3.43	4.17	3.87	11.42	2.83		
December.....	2.53	5.95	7.71	2.81	3.06	5.98	8.48	4.32	2.07		
TOTALS.....	46.27	51.38	67.56	40.54	52.44	46.81	45.14	65.50	38.61	—	

c c c

1879 No observations



# RAINFALL AT Ullswater, Markindale, Carsonage

Lat. ....

Lon. ....

County of Westmorland

Rain Gauge, by. ....

Observer Rev. S. J. Gelding M.A.

Diameter .....											
Height .....											
Altitude .....											
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	7.76	7.01	21.08	21.80	9.33	14.28					
February .....	9.97	5.33	10.09	1.25	6.74	1.77					
March .....	3.55	8.00	5.55	4.13	5.74	3.16					
April.....	2.28	2.97	2.30	.81	5.47	2.18					
May .....	7.85	1.60	4.86	2.26	1.52	3.68					
June.....	1.56	2.17	6.09	2.99	2.62	5.62					
July .....	1.25	6.13	4.17	9.07	2.93	3.60					
August.....	1.40	5.80	4.43	6.58	11.80	4.22					
September.....	7.62	4.70	7.93	4.18	10.34	7.29					
October.....	15.27	8.03	12.78	7.59	20.08	6.87					
November.....	5.62	2.50	11.90	4.26	5.31	6.25					
December.....	2.93	11.63	12.72	4.69	4.55	8.28					
TOTALS .....	67.06	65.87	103.90	69.61	86.43	67.20					

C C C



RAINFALL AT *Shap Net Heddate*

Lat.....

Lon.....

County of *Westmorland*

Rain Gauge, by..... Observer *G. J. Symes*

Diameter .....	<i>8</i>										
Height .....	<i>1</i>										
Altitude .....	<i>1500</i>										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>15.00</i>	<i>3.50</i>	<i>18.75</i>								
February .....	<i>12.50</i>	<i>10.25</i>	<i>11.75</i>								
March .....	<i>3.75</i>	<i>2.00</i>	<i>5.50</i>								
April .....	<i>7.25</i>	<i>4.00</i>	<i>3.75</i>								
May .....	<i>8.25</i>	<i>1.25</i>	<i>3.25</i>								
June .....	<i>9.00</i>	<i>13.00</i>	<i>8.50</i>								
July .....	<i>2.50</i>		<i>5.75</i>								
August .....	<i>4.75</i>	<i>11.75</i>	<i>7.25</i>								
September.....	<i>8.50</i>		<i>9.50</i>								
October.....	<i>16.00</i>	<i>7.25</i>	<i>6.25</i>								
November.....	<i>8.50</i>	<i>2.50</i>	<i>8.25</i>								
December.....	<i>5.00</i>	<i>7.75</i>	<i>7.25</i>								
TOTALS .....	<i>101.00</i>	<i>63.25</i>	<i>95.75</i>								

1871 - Gauge suspected of leaking, the amount being so low.

1872 Gauge moved and away for repair, the amount seems small

1872 "The Gauge is sheltered on the N & NW by a hill and on "  
"the S & SW & E is an open plain it registers most with a "  
"N & NW wind on account of the hill behind it. — I set up "  
"a Tin on the N side of the hill during a heavy rain with "  
"a South wind, & it registered  $\frac{1}{2}$  an inch more than the gauge "  
"in 24 hrs. at another time <sup>when</sup> the wind was blowing from the "  
"North the tin set up in the same place registered less than "  
"the gauge"



RAINFALL AT *Brough, Summit 5 mls E.S.E.*

70

Lat. ....

Lon. ....

County of *Westmorland*

Rain Gauge, by .....

Observer *M<sup>r</sup> T. Sanderson*

Diameter....						8					
Height ....						1-					
Altitude ....						1410					
Year ....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....							4.00				
February....							4.40				
March.....							5.90				
April .....							4.00				
May .....							2.0				
June .....							2.40				
July.....							2.80				
August ....							5.60				
September ..							7.10				
October ....						# 4.80	4.50				
November ..						4.20	6.20				
December ..						5.10	8.50	#			
TOTALS ..							55.60				







# RAINFALL AT *Hurth Lyke 9 mls S of [Alston]*

Lat. ....

Lon. ....

County of

*Westmorland*

Rain Gauge, by

Observer

*M<sup>r</sup> J Todd*

Diameter . . .						8	.	.			
Height . . .						1	.	.			
Altitude . . .						2000	.	.			
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .							2.60	8.00	8.13	.60	
February . . .							7.90	8.40	3.30	3.40	
March . . . .							6.70	4.57	6.20	3.80	
April . . . . .							5.00	4.20	3.40	2.50	
May . . . . .							2.10	5.20	7.45	2.40	
June . . . . .							4.30	4.60	5.10	5.40	
July . . . . .							2.80	9.60	5.10	10.00	
August . . . .							4.50	10.90	6.70	7.60	
September . .							7.00	5.10	8.20	6.80	
October . . . .							5.20	10.25	7.40	1.00	
November . .						#6.60	4.90	10.02	4.75	2.00	
December . .						4.70	6.90	6.80	3.67	3.40	
TOTALS . .							59.90	87.64	69.40	48.90	



# RAINFALL AT *Appleby*

70

Lat.....

Lon.....

County of *Westmorland*

Rain Gauge, by..... Observer *Dr. J. Armstrong*

Diameter .....	<i>8</i>						<i>8.5</i>	<i>5</i>			
Height .....	<i>1</i>										
Altitude .....	<i>442</i>										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>3.28</i>	<i>2.07</i>	<i>5.98</i>	<i>8.93</i>	<i>4.35</i>	<i>5.28</i>	<i>1.34</i>	<i>6.06</i>	<i>2.78</i>	<i>.57</i>	
February .....	<i>3.07</i>	<i>2.88</i>	<i>4.38</i>	<i>1.38</i>	<i>2.77</i>	<i>.69</i>	<i>3.15</i>	<i>2.43</i>	<i>1.23</i>	<i>1.56</i>	
March .....	<i>1.10</i>	<i>2.30</i>	<i>2.62</i>	<i>2.01</i>	<i>3.44</i>	<i>1.31</i>	<i>3.57</i>	<i>2.41</i>	<i>1.71</i>	<i>2.49</i>	
April.....	<i>.75</i>	<i>1.74</i>	<i>1.14</i>	<i>.67</i>	<i>2.72</i>	<i>.54</i>	<i>1.84</i>	<i>2.30</i>	<i>2.01</i>	<i>1.49</i>	
May .....	<i>2.35</i>	<i>1.23</i>	<i>2.44</i>	<i>.92</i>	<i>1.52</i>	<i>1.61</i>	<i>.91</i>	<i>1.90</i>	<i>4.41</i>	<i>1.27</i>	
June.....	<i>1.33</i>	<i>2.79</i>	<i>3.26</i>	<i>1.36</i>	<i>.92</i>	<i>3.30</i>	<i>2.62</i>	<i>2.41</i>	<i>2.69</i>	<i>3.56</i>	
July .....	<i>.76</i>	<i>4.77</i>	<i>3.03</i>	<i>2.59</i>	<i>1.62</i>	<i>3.61</i>	<i>2.16</i>	<i>6.54</i>	<i>.80</i>	<i>4.09</i>	
August.....	<i>2.31</i>	<i>2.72</i>	<i>4.45</i>	<i>3.26</i>	<i>4.77</i>	<i>1.71</i>	<i>3.40</i>	<i>6.16</i>	<i>2.71</i>	<i>4.86</i>	
September.....	<i>2.48</i>	<i>3.20</i>	<i>4.35</i>	<i>1.42</i>	<i>4.24</i>	<i>4.98</i>	<i>4.66</i>	<i>2.05</i>	<i>3.06</i>	<i>2.56</i>	
October.....	<i>5.18</i>	<i>3.72</i>	<i>6.23</i>	<i>2.90</i>	<i>6.72</i>	<i>2.81</i>	<i>2.78</i>	<i>4.71</i>	<i>3.88</i>	<i>1.14</i>	
November.....	<i>2.39</i>	<i>.93</i>	<i>3.79</i>	<i>2.16</i>	<i>3.26</i>	<i>3.12</i>	<i>2.70</i>	<i>6.23</i>	<i>2.55</i>	<i>.89</i>	
December.....	<i>2.23</i>	<i>3.45</i>	<i>4.25</i>	<i>1.43</i>	<i>2.69</i>	<i>3.48</i>	<i>5.72</i>	<i>2.46</i>	<i>2.06</i>	<i>2.55</i>	
TOTALS .....	<i>27.31</i>	<i>31.80</i>	<i>45.92</i>	<i>29.03</i>	<i>39.02</i>	<i>32.44</i>	<i>34.85</i>	<i>45.66</i>	<i>29.89</i>	<i>27.00</i>	<i>(34.292)</i>

1876 Gauge changed from an 8 in to a 5 in in April

1879 No refly

1879 estimated from Reagill & Lowther Cotes



# RAINFALL AT *Appleby Morland Hall*

Lat. ....

Lon. ....

County of *Westmorland*

Rain Gauge, by .....

Observer *E. Busfield*

Diameter...								5			
Height ...								5			
Altitude ...								500			
Year ...	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ...								3.88	1.61		
February. .								1.23	.97		
March .....								1.56	.79		
April .....								1.95	2.53		
May .....								1.69	3.16		
June .....								1.87	2.39		
July .....								4.42	1.04		
August ...								4.93	3.13		
September ..								1.54	2.95		
October ...								3.33	2.36		
November ..								4.71	2.58		
December ..								1.53	1.52		
TOTALS ..								32.64	25.03	—	

*1877 Tall oak trees a few yards distant*

*1879 no observations*



# RAINFALL AT Appleby, Rasp Hill Drifton

Lat. ....

Lon. ....

County of Westmorland, 7 mls E of

Rain Gauge, by

Observer Mr. W. Pratt

Diameter...						8					
Height ...						1					
Altitude ...						1940					
Year ....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....							2.00				
February ....							6.50				
March .....							4.75				
April .....							5.25				
May .....							2.25				
June .....							3.75				
July .....							3.25				
August ....							4.25				
September ..							8.75				
October ....							3.25				
November ..						# 6.00	5.25				
December ..						5.25	9.50	#			
TOTALS ..							58.75				



# RAINFALL AT *Milburn Howgill Castle*

Lat. ....

Lon. ....

County of *Westmorland*

Rain Gauge, by .....

Observer *M<sup>rs</sup> Mitchell*

Diameter . . .											
Height . . .											
Altitude . . .							<i>9</i> <i>700</i>				
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .							<i>(1.34)</i>				
February . . .							<i>2.28</i>				
March . . . . .							<i>2.79</i>				
April . . . . .							<i>2.36</i>				
May . . . . .							<i>1.27</i>				
June . . . . .							<i>1.71</i>				
July . . . . .							<i>1.67</i>				
August . . . .							<i>3.78</i>				
September . .							<i>4.11</i>				
October . . . .							<i>2.19</i>				
November . .							<i>2.99</i>				
December . .							<i>6.27</i>				
TOTALS . .							<i>(32.76)</i>				

*1876 Jan'y amount computed*