

Astronomical Almanac for 2021 November

Blackpool, Lancs Latitude: 53°49'08" N Longitude: 3°02'01" W
 Elevation: 10 metres

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
	SR: 07:12	SR: 07:14	SR: 07:16	SR: 07:18	SR: 07:20	SR: 07:22
	SS: 16:38	SS: 16:36	SS: 16:34	SS: 16:32	SS: 16:31	SS: 16:29
	MR: 02:01	MR: 03:26	MR: 04:54	MR: 06:25	MR: 07:59	MR: 09:35
	MS: 15:52	MS: 16:05	MS: 16:18	MS: 16:34	MS: 16:53	MS: 17:21
				NM: 21:15	Ura Opp	
7	8	9	10	11	12	13
SR: 07:24	SR: 07:26	SR: 07:28	SR: 07:30	SR: 07:32	SR: 07:34	SR: 07:36
SS: 16:27	SS: 16:25	SS: 16:23	SS: 16:22	SS: 16:20	SS: 16:18	SS: 16:17
MR: 11:06	MR: 12:23	MR: 13:20	MR: 13:58	MR: 14:24	MR: 14:42	MR: 14:56
MS: 18:00	MS: 18:56	MS: 20:09	MS: 21:32	MS: 22:57	MS: None	MS: 00:19
				FQ: 12:48		
14	15	16	17	18	19	20
SR: 07:38	SR: 07:39	SR: 07:41	SR: 07:43	SR: 07:45	SR: 07:47	SR: 07:49
SS: 16:15	SS: 16:14	SS: 16:12	SS: 16:11	SS: 16:09	SS: 16:08	SS: 16:06
MR: 15:08	MR: 15:18	MR: 15:29	MR: 15:40	MR: 15:54	MR: 16:11	MR: 16:34
MS: 01:37	MS: 02:53	MS: 04:07	MS: 05:20	MS: 06:34	MS: 07:47	MS: 09:00
					FM: 09:00	
					LE: 09:05	
21	22	23	24	25	26	27
SR: 07:50	SR: 07:52	SR: 07:54	SR: 07:56	SR: 07:57	SR: 07:59	SR: 08:01
SS: 16:05	SS: 16:04	SS: 16:03	SS: 16:02	SS: 16:01	SS: 16:00	SS: 15:59
MR: 17:05	MR: 17:47	MR: 18:41	MR: 19:47	MR: 21:00	MR: 22:17	MR: 23:37
MS: 10:09	MS: 11:11	MS: 12:01	MS: 12:39	MS: 13:08	MS: 13:29	MS: 13:45
						LQ: 12:30
28	29	30				
SR: 08:02	SR: 08:04	SR: 08:05				
SS: 15:58	SS: 15:57	SS: 15:56				
MR: None	MR: 00:58	MR: 02:21				
MS: 13:59	MS: 14:11	MS: 14:23				
	Mer SCon					

Meteor Showers Report for 2021-11-01 to 2021-11-30

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
2021-11-03	Taurids	8	3h44m	14°	0.05	220°
2021-11-18	Leonids	10	10h08m	22°	0.98	236°

Lunar Eclipse

Lunar eclipse on 2021-11-19

Moon rise: 16:11

Moon set: 07:47

Magnitude: 0.98

Partial phase begins: 07:22

Time of maximum eclipse: 09:05

Partial phase ends: 10:49

Planet View Info Report for 2021-11-01 to 2021-11-30

Mercury

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	05:31	16:21	13h25m57s	-6°47'29"	16°30'45"	0.790	1.15269
2021-11-08	06:09	16:10	14h06m30s	-11°06'56"	12°36'00"	0.914	1.28739
2021-11-15	06:50	16:00	14h49m34s	-15°23'20"	8°17'22"	0.971	1.37725
2021-11-22	07:32	15:52	15h33m58s	-19°08'28"	4°05'27"	0.994	1.42971
2021-11-29	08:12	15:49	16h19m38s	-22°08'45"	0°42'22"	1.000	1.45072

Venus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	12:03	18:19	17h40m42s	-27°05'11"	47°01'40"	0.482	0.65113
2021-11-08	12:06	18:21	18h10m47s	-27°14'04"	46°43'28"	0.444	0.59795
2021-11-15	12:03	18:24	18h38m51s	-26°55'13"	45°57'12"	0.402	0.54534
2021-11-22	11:54	18:28	19h04m01s	-26°11'52"	44°34'03"	0.355	0.49380
2021-11-29	11:38	18:31	19h25m20s	-25°08'28"	42°22'29"	0.303	0.44405

Mars

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	06:26	16:24	13h55m55s	-11°22'17"	7°50'48"	0.998	2.58526
2021-11-08	06:26	16:05	14h14m00s	-13°01'57"	10°08'21"	0.997	2.56638
2021-11-15	06:27	15:46	14h32m26s	-14°37'22"	12°25'36"	0.996	2.54480
2021-11-22	06:27	15:28	14h51m14s	-16°07'47"	14°42'18"	0.994	2.52073
2021-11-29	06:28	15:11	15h10m28s	-17°32'27"	16°58'24"	0.992	2.49428

Jupiter

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	14:31	23:46	21h41m20s	-15°01'55"	103°48'57"	0.991	4.67611
2021-11-08	14:04	23:21	21h42m52s	-14°53'07"	97°12'03"	0.990	4.78345
2021-11-15	13:38	22:57	21h45m00s	-14°41'16"	90°42'59"	0.990	4.89238
2021-11-22	13:11	22:34	21h47m42s	-14°26'30"	84°21'23"	0.990	5.00146
2021-11-29	12:45	22:11	21h50m55s	-14°08'58"	78°06'34"	0.991	5.10945

Saturn

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	13:57	22:17	20h39m41s	-19°14'21"	88°30'48"	0.998	9.92712
2021-11-08	13:30	21:51	20h40m51s	-19°09'58"	81°46'49"	0.998	10.04279
2021-11-15	13:03	21:26	20h42m19s	-19°04'23"	75°06'06"	0.998	10.15648
2021-11-22	12:37	21:01	20h44m04s	-18°57'39"	68°28'31"	0.998	10.26666
2021-11-29	12:11	20:36	20h46m06s	-18°49'49"	61°53'41"	0.998	10.37197

Uranus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	16:38	07:44	2h42m30s	15°19'13"	175°49'34"	1.000	18.74302
2021-11-08	16:09	07:14	2h41m22s	15°14'01"	176°49'06"	1.000	18.74275
2021-11-15	15:41	06:45	2h40m14s	15°08'52"	169°30'47"	1.000	18.75769
2021-11-22	15:13	06:16	2h39m08s	15°03'53"	162°10'53"	1.000	18.78756
2021-11-29	14:45	05:47	2h38m06s	14°59'11"	154°50'27"	1.000	18.83190

Neptune

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2021-11-01	15:17	02:35	23h27m32s	-4°46'10"	131°51'59"	1.000	29.25000
2021-11-08	14:50	02:07	23h27m09s	-4°48'24"	124°45'04"	1.000	29.34558
2021-11-15	14:22	01:39	23h26m52s	-4°50'03"	117°38'16"	1.000	29.44963
2021-11-22	13:54	01:11	23h26m40s	-4°51'05"	110°31'50"	1.000	29.56049
2021-11-29	13:27	00:43	23h26m35s	-4°51'28"	103°25'45"	1.000	29.67656