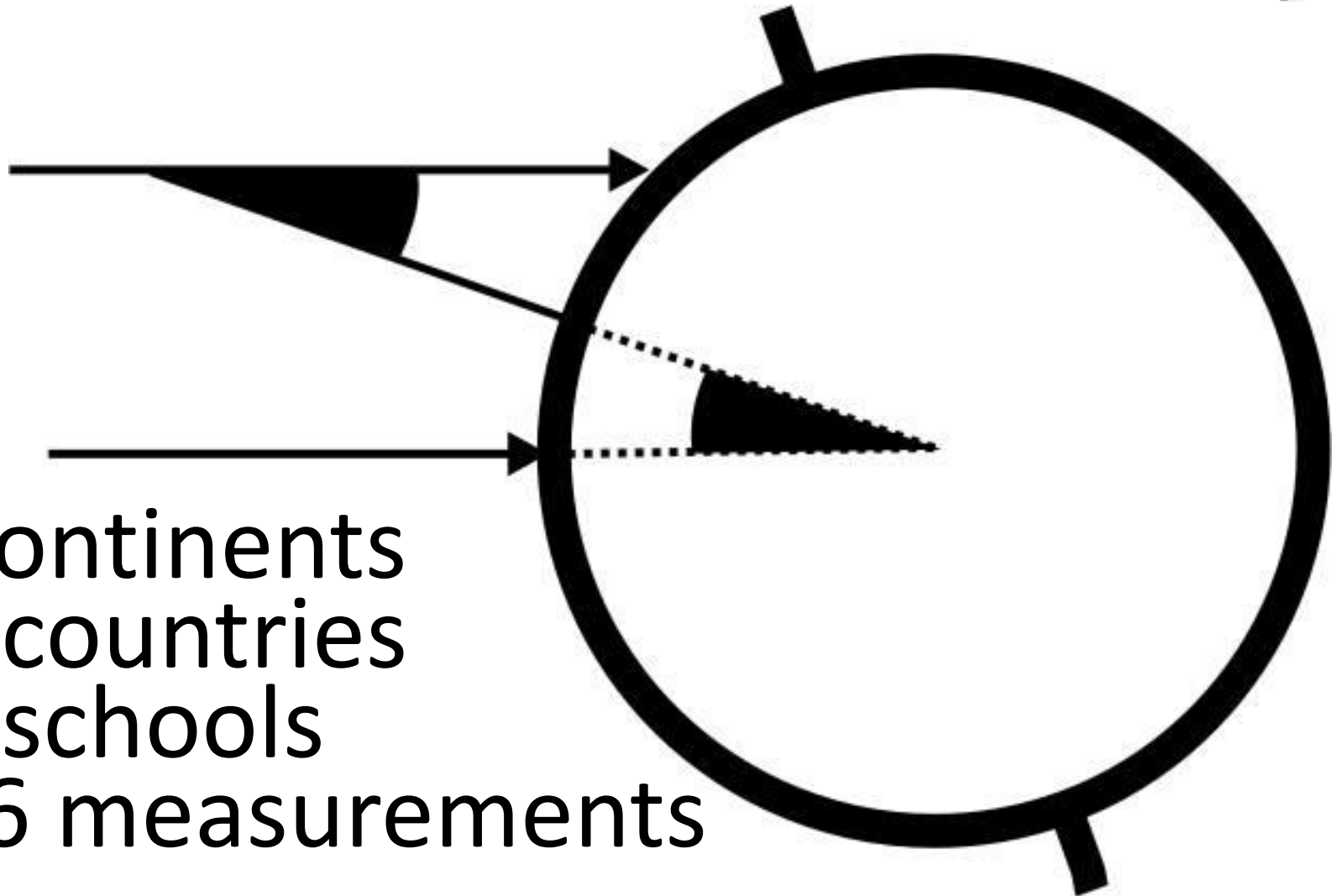


ERATOSTHENES

March 2015 experiments




5 continents
19 countries
47 schools
126 measurements

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W	Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400		Grevena	Greece	2nd primary of Grevena	40.086	21.424
	Doreen	Australia	Hazel Glen College	-37.600	145.127		Ioannina	Greece	Experimental College	39.666	20.845
	Dendermonde	Belgium	Sint-Vincentiusinstituut	51.030	4.091		Komotini	Greece	3rd Junior High School Komotini	41.121	25.394
	Imbassai	Brazil	Fundación Caminos de Anisacate	-12.491	-37.955		Lardos	Greece	Primary School of Lardos	36.093	28.012
	Rio de Janeiro	Brazil	Associação Síndrome de Down, Teresópolis	-22.421	-42.978		Patras	Greece	Rio-Antirio Bridge	38.310	21.779
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317		Petroupoli	Greece	4o Junior High School	38.036	23.674
	Shenzhen	China	荔園小學南校區	22.549	114.092		Gressoney St Jean	Italy	Ecole	45.781	7.825
	Bjelovar	Croatia	I. osnovna škola Bjelovar	45.904	16.838		Marina di Carrara	Italy	M Buonarroti primary school	44.045	10.031
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462		Merlara	Italy	Lower Sec. School "Dante Alighieri"	45.163	11.446
	Nova Bukovica	Croatia	OŠ Vladimira Nazora	45.664	17.769		Pont St Martin	Italy	I.S. Monte Rosa A	45.601	7.795
	Ogulin	Croatia	Ivana Brlić Mažuranić Primary School	45.266	15.227		Kanchanpur	India	Govt sss mahua khera dholpur	26.706	77.691
	Plaški	Croatia	Osnovna škola Plaški	45.083	15.366		Mandhar	India	Govt. High School Mandhar	29.992	77.196
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237		Mumbai	India	L.R & S.M Vissanji Academy	19.121	72.951
	Saint Félix	France	Ecole primaire	43.883	2.983		Kuantan	Malaysia	SMK St Thomas	3.827	103.339
	Stuttgart	Germany	Greek High School	48.827	9.168		Palmela	Portugal	Escola Secundária	38.571	-8,909
	Aigio	Greece	1st Gimnasium of Aigio	38.252	22.079		Băicoi	Romania	Liceul Tehnologic C. Cantacuzino	45.033	25.850
	Aspropyrgos	Greece	3rd High School of Aspropyrgos	38.061	23.601		São Tomé	São Tomé and Príncipe	Instituto Diocesano de Formação João Paulo II	0.354	6.719
	Athens	Greece	Acropolis	37.971	23.727		Medvode	Slovenia	Osnovna šola Preska	46.133	14.417
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726		Chiayi City	Taiwan	Shixian Elementary School	23.489	120.428
	Athens	Greece	1st JHS of Agioi Anargyroi	38.027	23.726		Kaohsiung	Taiwan	鳳西國中 FXM	22.603	120.356
	Athens	Greece	4th Junior High School of Chalandri	38.024	23.821		Sfax	Tunisia	écoles de Sakiét Eddayer	34.789	10.780
	Athens	Greece	3rd Junior High School of Ilion	38.037	23.712		HồChíMìnhCity	Vietnam	Phú Nhuận High School	10.809	106.676
	Drama	Greece	8th primary school of Drama	41.157	24.147		HồChíMìnhCity	Vietnam	Trần Khai Nguyên High School	10.759	106.669
	Drama	Greece	13th primary school of Drama	41.148	24.136						

Aigio, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st Gimnasium of Aigio	38.252	22.079

Date	Gnomon	Shadow	Angle
March 04	120 cm	118.5 cm	44.6°
March 10	120 cm	109.5 cm	42.4°
March 12	120 cm	106.3 cm	41.5°
March 17	86 cm	71 cm	39.5°
March 19	86 cm	69 cm	38.7°
March 20	86 cm	68 cm	38.3°

Anisacate, Argentina

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400

Date	Gnomon	Shadow	Angle
March 02	100 cm	-47 cm	-25.2°
March 03	100 cm	-46 cm	-24.7°
March 05	100 cm	-49 cm	-26.1°
March 06	100 cm	-50 cm	-26.6°
March 07	100 cm	-50.5 cm	-26.8°
March 09	100 cm	-52 cm	-27.5°
March 10	100 cm	-53 cm	-27.9°
March 11	100 cm	-54 cm	-28.4°
March 12	100 cm	-55 cm	-28.8°
March 13	100 cm	-56 cm	-29.2°
March 30	100 cm	-70 cm	-35.0°
March 31	100 cm	-70 cm	-35.0°

Aspropyrgos, Greece

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aspropyrgos	Greece	3rd High School of Aspropyrgos	38.061	23.601

Date	Gnomon	Shadow	Angle
March 18	81 cm	92 cm	48.6°
March 19	81 cm	62.8 cm	37.8°
March 20	81 cm	62.5 cm	37.7°

Athens - Agion Anargyron pro, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726

Date	Gnomon	Shadow	Angle
March 02	49 cm	50 cm	45.6°
March 03	49 cm	48 cm	44.4°
March 04	49 cm	48 cm	44.4°
March 17	49 cm	40 cm	39.2°
March 19	49 cm	37.5 cm	37.4°

Athens - Chalandri, Greece

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	4th Junior High School of Chalandri	38.024	23.821

Date	Gnomon	Shadow	Angle
March 16	99 cm	82.3 cm	39.7°
March 30	100 cm	82.3 cm	39.5°

Athens - Ilion, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	3rd Junior High School of Ilion	38.037	23.712

Date	Gnomon	Shadow	Angle
March 03	100 cm	101 cm	45.3°
March 09	100 cm	99 cm	44.7°
March 12	100 cm	88 cm	41.3°
March 16	100 cm	83 cm	39.7°
March 18	100 cm	80.5 cm	38.8°

Athens -Agion Anargyron 1st, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	1st JHS of Agioi Anargyroi	38.027	23.726

Date	Gnomon	Shadow	Angle
March 16	50 cm	39.5 cm	38.3°
March 19	50 cm	42.9 cm	40.6°
March 21	32.5 cm	25.5 cm	38.1°
March 30	50.0 cm	39.0 cm	38.0°

Athens-Acropolis, Greece

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Acropolis	37.971	23.727

Date	Gnomon	Shadow	Angle
March 21	48.5 cm	37.2 cm	37.5°

Băicoi, Romania

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Băicoi	Romania	Liceul Tehnologic C. Cantacuzino	45.033	25.850

Date	Gnomon	Shadow	Angle
March 16	92 cm	94 cm	45.6°
March 17	86 cm	87 cm	45.3°
March 18	87 cm	90 cm	45.9°
March 19	93 cm	93.5 cm	45.9°

Bjelovar, Croatia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Bjelovar	Croatia	I. osnovna škola Bjelovar	45.904	16.838

Date	Gnomon	Shadow	Angle
March 18	100 cm	106.5 cm	46.8°
March 19	100 cm	108.6 cm	47.4°

Chiayi City, Taiwan

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chiayi City	Taiwan	Shixian Elementary School	23.489	120.428

Date	Gnomon	Shadow	Angle
March 21	cm	cm	cloudy °

Dendermonde, Belgium

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Dendermonde	Belgium	Sint-Vincentiusinstituut	51.030	4.091

Date	Gnomon	Shadow	Angle
March 23	100 cm	122 cm	50.7°

Donji Muć, Croatia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462

Date	Gnomon	Shadow	Angle
March 18	100 cm	97 cm	44.1°

Doreen, Australia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Doreen	Australia	Hazel Glen College	-37.600	145.127

Date	Gnomon	Shadow	Angle
March 18	33.7 cm	-23.4 cm	-34.8°

Drama-8, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Drama	Greece	8th primary school of Drama	41.157	24.147

Date	Gnomon	Shadow	Angle
March 18	100 cm	89 cm	41.7°

Drama-13, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Drama	Greece	13th primary school of Drama	41.148	24.136

Date	Gnomon	Shadow	Angle
March 17	100 cm	89 cm	41.7°
March 19	100 cm	90 cm	42.0°
March 22	16.9 cm	13.7 cm	45.8°

Gressoney St Jean, Italy

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Gressoney St Jean	Italy	Ecole	45.781	7.825

Date	Gnomon	Shadow	Angle
March 23	295 cm	313 cm	46.7°

Grevena, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Grevena	Greece	2nd primary of Grevena	40.086	21.424

Date	Gnomon	Shadow	Angle
March 20	100 cm	82 cm	39.4°

Hồ Chí Minh City PN, Vietnam

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Hồ Chí Minh City	Vietnam	Phú Nhuận High School	10.809	106.676

Date	Gnomon	Shadow	Angle
March 21	70 cm	13 cm	10.5°

Hồ Chí Minh City TKN, Vietnam

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Hồ Chí Minh City	Vietnam	Trần Khai Nguyên High School	10.759	106.669

Date	Gnomon	Shadow	Angle
March 21	64 cm	12 cm	10.6°

Imbassai, Brazil

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Imbassai	Brazil	Fundación Caminos de Anisacate	-12.491	-37.955

Date	Gnomon	Shadow	Angle
March 17	87 cm	-18 cm	-11.7°
March 18	87 cm	-19 cm	-12.3°
March 19	87 cm	-20 cm	-12.9°
March 20	87 cm	-21 cm	-13.6°

Ioannina, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ioannina	Greece	Experimental College	39.666	20.845

Date	Gnomon	Shadow	Angle
March 04	100 cm	103.8 cm	46.1°
March 09	100 cm	97 cm	44.1°
March 12	100 cm	93.1 cm	43.0°
March 16	100 cm	88 cm	41.3°
March 18	100 cm	85.5 cm	40.5°
March 19	100 cm	84 cm	40.0°
March 31	100 cm	70.8 cm	35.3°

Kanchanpur, India

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kanchanpur	India	Govt sss mahua khera dholpur	26.706	77.691

Date	Gnomon	Shadow	Angle
March 20	64 cm	32 cm	26.6°

Kaohsiung - FXM ,Taiwan

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kaohsiung	Taiwan	鳳西國中 FXM	22.603	120.356

Date	Gnomon	Shadow	Angle
March 16	50 cm	24.3 cm	25.9°

Komotini, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Komotini	Greece	3rd Junior High School Komotini	41.121	25.394

Date	Gnomon	Shadow	Angle
March 11	100 cm	96.2 cm	43.9°
March 13	100 cm	95.4 cm	43.7°
March 17	100 cm	90.7 cm	42.2°
March 19	100 cm	88.6 cm	41.5°

Kuantan, Malaysia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kuantan	Malaysia	SMK St Thomas	3.827	103.339

Date	Gnomon	Shadow	Angle
March 09	101 cm	9.3 cm	7.5°
March 16	101 cm	7.7 cm	4.4°
March 18	101 cm	8.6 cm	4.9°
March 19	101 cm	4.1 cm	2.3°
March 20	101 cm	2.3 cm	1.3°
March 31	101 cm	0 cm	0°

Lafrançaise, France

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

Date	Gnomon	Shadow	Angle
March 06	100 cm	118 cm	49.7°
March 09	100 cm	113 cm	48.5°
March 10	100 cm	111.5 cm	48.1°
March 17	100 cm	101 cm	45.3°
March 20	100 cm	97 cm	44.1°
March 23	100 cm	93 cm	42.9°

Lardos, Greece

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lardos	Greece	Primary School of Lardos	36.093	28.012

Date	Gnomon	Shadow	Angle
March 05	78 cm	70.2 cm	42.0°
March 10	78 cm	65.3 cm	39.9°
March 19	100 cm	72.4 cm	35.9°
March 20	24 cm	16.9 cm	35.2°
March 30	31.7 cm	20.8 cm	33.3°

Mandhar, India

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mandhar	India	Govt. High School Mandhar	29.992	77.196

Date	Gnomon	Shadow	Angle
March 21	52 cm	35.5 cm	34.3°

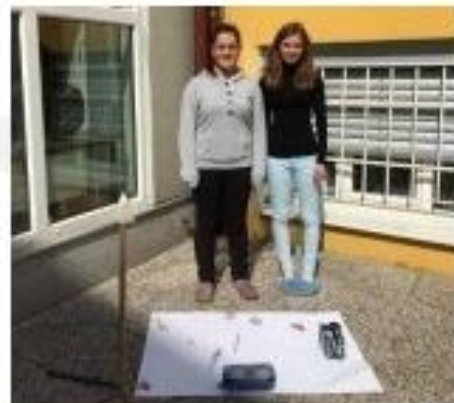
ANGLE OF THE SUN : $44^{\circ}16'44.275''$


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Marina di Carrara	Italy	M Buonarroti primary school	44.045	10.031

Date	Gnomon	Shadow	Angle
March 18	100 cm	97.5 cm	44.3°

Medvode, Slovenia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Medvode	Slovenia	Osnovna šola Preska	46.133	14.417

Date	Gnomon	Shadow	Angle
March 18	100 cm	103 cm	45.8°
March 19	100 cm	105.5 cm	46.5°
March 20	100 cm	105 cm	46.3°

Merlara, Italy

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Merlara	Italy	Lower Sec. School "Dante Alighieri"	45.163	11.446

Date	Gnomon	Shadow	Angle
March 18	100 cm	115 cm	49.0°
March 19	100 cm	103 cm	45.8°

Mumbai, India

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mumbai	India	L.R & S.M Vissanji Academy	19.121	72.951

Date	Gnomon	Shadow	Angle
March 20	49 cm	16.3 cm	18.4°

Nova Bukovica, Croatia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Nova Bukovica	Croatia	OŠ Vladimira Nazora	45.664	17.769

Date	Gnomon	Shadow	Angle
March 04	100 cm	101.7 cm	45.5°

Ogulin, Croatia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ogulin	Croatia	Ivana Brlić Mažuranić Primary School	45.266	15.227

Date	Gnomon	Shadow	Angle
March 19	100 cm	104 cm	46.1°

Palmela, Portugal

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Palmela	Portugal	Escola Secundária	38.571	-8,909

Date	Gnomon	Shadow	Angle
March 13	190.1 cm	173 cm	42,3°
March 19	190.1 cm	158.5 cm	39.8°
March 20	190.1 cm	155 cm	39.1°

Patras, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Patras	Greece	Rio-Antirio Bridge	38.310	21.779

Date	Gnomon	Shadow	Angle
March 21	86 cm	67.2 cm	38.0°

Petroupoli, Greece

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Petroupoli	Greece	4o Junior High School	38.036	23.674

Date	Gnomon	Shadow	Angle
March 10	100.1 cm	98 cm	44.4°
March 11	100.1 cm	89.4 cm	41.8°
March 12	100.1 cm	87.4 cm	41.1°
March 16	103.5 cm	86.5 cm	39.9°
March 17	100.1 cm	81.6 cm	39.2°
March 18	100.1 cm	80.5 cm	38.8°
March 19	100.1 cm	79.2 cm	38.4°
March 20	100.1 cm	78.3 cm	38.0°
March 24	100.1 cm	74.5 cm	36.7°
March 30	100.1 cm	67.7 cm	34.1°
March 31	100.1 cm	66.4 cm	33.6°

Plaški, Croatia

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Plaški	Croatia	Osnovna škola Plaški	45.083	15.366

Date	Gnomon	Shadow	Angle
March 20	100 cm	100 cm	45°

Pont St Martin, Italy

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pont St Martin	Italy	I.S. Monte Rosa A	45.601	7.795

Date	Gnomon	Shadow	Angle
March 19	100 cm	102 cm	45.6°

Rio de Janeiro ASSIND, Brazil

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Associação Síndrome de Down, Teresópolis	-22.421	-42.978

Date	Gnomon	Shadow	Angle
March 20	cm	cm	cloudy °

Rio de Janeiro, Brazil

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
March 20	70 cm	-28 cm	-21.8°

Saint Félix, France

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Saint Félix	France	Ecole primaire	43.883	2.983

Date	Gnomon	Shadow	Angle
March 02	99 cm	140 cm	54.7°
March 06	99 cm	121 cm	50.7°
March 09	99 cm	119 cm	50.2°
March 12	99 cm	108 cm	47.5°
March 23	99 cm	93 cm	43.2°

São Tomé, São Tomé and Príncipe

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	São Tomé	São Tomé and Príncipe	Instituto Diocesano de Formação João Paulo II	0.354	6.719

Date	Gnomon	Shadow	Angle
March 20	172 cm	1 cm	0.3°

Sfax, Tunisia

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Sfax	Tunisia	écoles de Sakiét Eddayer	34.789	10.780

Date	Gnomon	Shadow	Angle
March 30	100 cm	59.3 cm	30.7°

Shenzhen, China

March 2015




Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Shenzhen	China	荔園小學南校區	22.549	114.092

Date	Gnomon	Shadow	Angle
March 16	50 cm	23.5 cm	25.2°
March 17	50 cm	22.8 cm	24.5°
March 21	50 cm	22.0 cm	23.7°

Stuttgart, Germany

March 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Stuttgart	Germany	Greek High School	48.827	9.168

Date	Gnomon	Shadow	Angle
March 19	64 cm	95 cm	56.0°