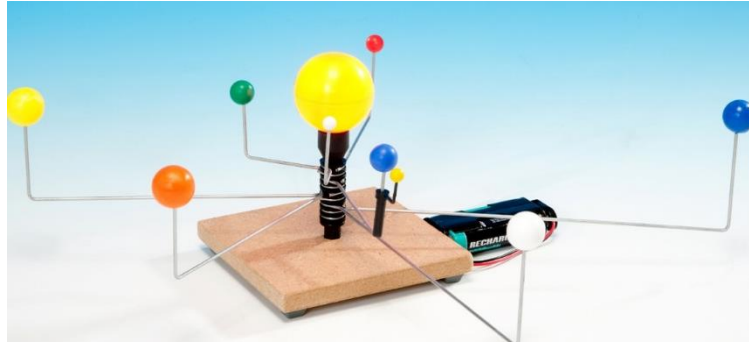


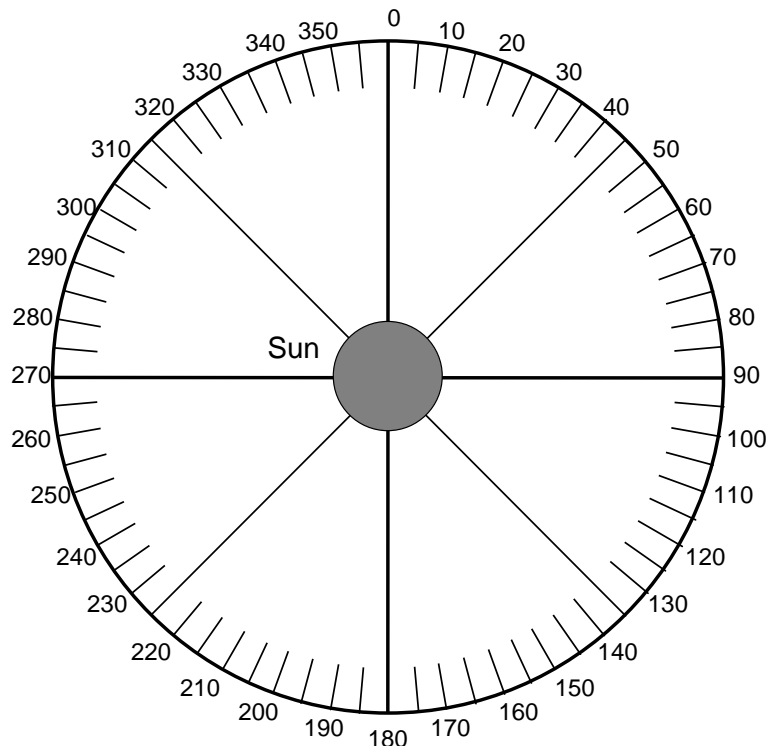
Heliocentric longitudes for setting up the Orbit™ orrery



Position of the planets in the solar system.

The positions of the planets relative to each other and to the sun are constantly changing. To set up an orrery, heliocentric (sun-centred) longitudes are most useful.

To position your planets on an Orbit Orrery, copy and cut out the degree scale (printed below) and place it on your orrery. Then align the planets with the longitudes given on the next page.



| | Jan 1st | Feb 1st | Mar 1st | Apr 1st | May 1st | Jun 1st | Jul 1st | Aug 1st | Sep 1st | Oct 1st | Nov 1st | Dec 1st |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 2021 | | | | | | | | | | | | |
| Mercury | 304 | 096 | 220 | 310 | 102 | 232 | 321 | 126 | 244 | 336 | 148 | 252 |
| Venus | 232 | 281 | 326 | 015 | 063 | 113 | 162 | 212 | 261 | 309 | 358 | 046 |
| Earth | 101 | 132 | 161 | 191 | 221 | 251 | 279 | 309 | 339 | 008 | 039 | 069 |
| Mars | 066 | 082 | 096 | 111 | 124 | 138 | 151 | 165 | 178 | 192 | 206 | 220 |
| Jupiter | 307 | 310 | 312 | 315 | 317 | 320 | 323 | 326 | 328 | 331 | 334 | 336 |
| Saturn | 304 | 305 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 |
| Uranus | 039 | 040 | 040 | 040 | 041 | 041 | 041 | 042 | 042 | 042 | 043 | 043 |
| Neptune | 350 | 350 | 351 | 351 | 351 | 351 | 351 | 352 | 352 | 352 | 352 | 352 |
| 2022 | | | | | | | | | | | | |
| Mercury | 354 | 167 | 258 | 003 | 171 | 269 | 019 | 187 | 280 | 041 | 202 | 289 |
| Venus | 096 | 146 | 191 | 241 | 289 | 338 | 025 | 075 | 125 | 174 | 224 | 272 |
| Earth | 100 | 132 | 160 | 191 | 221 | 250 | 279 | 309 | 389 | 008 | 039 | 069 |
| Mars | 236 | 252 | 268 | 286 | 304 | 323 | 343 | 002 | 021 | 039 | 056 | 072 |
| Jupiter | 339 | 342 | 345 | 347 | 350 | 353 | 356 | 359 | 001 | 004 | 007 | 010 |
| Saturn | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 321 | 322 | 323 | 324 | 325 |
| Uranus | 043 | 044 | 044 | 044 | 045 | 045 | 045 | 046 | 046 | 046 | 047 | 047 |
| Neptune | 352 | 353 | 353 | 353 | 353 | 353 | 354 | 354 | 354 | 354 | 354 | 354 |
| 2023 | | | | | | | | | | | | |
| Mercury | 066 | 215 | 295 | 079 | 218 | 308 | 098 | 230 | 322 | 122 | 242 | 333 |
| Venus | 321 | 010 | 055 | 105 | 153 | 204 | 252 | 301 | 350 | 038 | 087 | 136 |
| Earth | 100 | 132 | 160 | 191 | 220 | 250 | 279 | 309 | 338 | 008 | 038 | 068 |
| Mars | 088 | 103 | 116 | 130 | 143 | 157 | 170 | 184 | 198 | 212 | 227 | 242 |
| Jupiter | 013 | 015 | 018 | 021 | 024 | 026 | 029 | 032 | 035 | 037 | 040 | 043 |
| Saturn | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 |
| Uranus | 048 | 048 | 048 | 049 | 049 | 049 | 050 | 050 | 050 | 051 | 051 | 051 |
| Neptune | 355 | 355 | 355 | 355 | 355 | 356 | 356 | 356 | 356 | 356 | 357 | 357 |
| 2024 | | | | | | | | | | | | |
| Mercury | 144 | 253 | 346 | 159 | 258 | 005 | 172 | 270 | 026 | 189 | 281 | 043 |
| Venus | 186 | 236 | 282 | 331 | 019 | 069 | 117 | 167 | 217 | 265 | 314 | 002 |
| Earth | 100 | 132 | 161 | 192 | 221 | 251 | 280 | 309 | 339 | 008 | 039 | 069 |
| Mars | 259 | 276 | 294 | 313 | 332 | 351 | 010 | 029 | 047 | 063 | 080 | 094 |
| Jupiter | 046 | 049 | 051 | 054 | 057 | 060 | 062 | 065 | 068 | 070 | 073 | 076 |
| Saturn | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 |
| Uranus | 052 | 052 | 052 | 053 | 053 | 053 | 054 | 054 | 054 | 055 | 055 | 055 |
| Neptune | 357 | 357 | 357 | 357 | 358 | 358 | 358 | 358 | 358 | 359 | 359 | 359 |
| 2025 | | | | | | | | | | | | |
| Mercury | 203 | 293 | 055 | 210 | 296 | 080 | 219 | 309 | 106 | 231 | 323 | 124 |
| Venus | 051 | 101 | 147 | 197 | 245 | 294 | 342 | 031 | 081 | 129 | 180 | 228 |
| Earth | 101 | 132 | 161 | 191 | 221 | 251 | 279 | 309 | 339 | 008 | 039 | 069 |
| Mars | 109 | 123 | 136 | 150 | 163 | 176 | 190 | 204 | 219 | 233 | 250 | 266 |
| Jupiter | 078 | 081 | 083 | 086 | 089 | 091 | 094 | 097 | 099 | 102 | 104 | 107 |
| Saturn | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 000 | 001 |
| Uranus | 056 | 056 | 056 | 057 | 057 | 057 | 058 | 058 | 059 | 059 | 059 | 060 |
| Neptune | 359 | 359 | 000 | 000 | 000 | 000 | 000 | 000 | 001 | 001 | 001 | 001 |