Lunar cycle- 29.530588 days revolution around the earth from full moon to full moon.

Number of days it takes the earth to circle the sun is 365.4

Number of times the moon circles the earth in a year is 12.3736

When using a base 10 calendar of 10 months each month would be comprised of 36 or 37 alternating days, averaging months of 36.5 days, with the .4 being converted into a leap year every five years and added to the end of the year's calendar as it is currently done in February.

The challenge appears in making the 12.3736 lunar cycles fit into the 10 months while always having the full moon land on the first day of the year which would be April 1st. Or as the new calendar would be called "Budding" the first full moon in spring solstice.

365.4 divided by 12.3736 = makes a cycle of 29.5306 days. The time for the moon to cycle around the earth from full moon to full moon.

Using the base 10 calendar it would take the moon 29.5306 days to circle the earth, and 36.5 days for the earth to circle the sun, which is a difference of 7 days

The fraction needed to synchronize the 12.3736 lunar month cycles into the 36.54 solar month cycles in a base 10 calendar year would be: 12.3736 divided by 36.54 = .338631

This means that each lunar day would have to be stretched by .338631 to match the 36.54 solar days per month.

To synchronize the lunar cycle to the solar cycle would require also to modify the zodiacal cycle from 12 to 10 signs. This could be accomplished by combining two of the spring signs and two of the fall signs.

Taurus-Gemini would be combined to represent Earth becoming air: called: Evaporation

Libra-Scorpio would be combined to represent Air becoming water: called: Condensation.

The other signs would remain as they are.

Month 1 Budding: earth day 1 first full moon Month has 36 days.

2nd lunar full moon. Day 29, Mars day; called: Planting.

Month 2 : called Planting: lasts 37 days. 3rd Full moon on day 22

Month 3: called Growing; lasts 36 days. Fourth full moon on day 14.

Month 4: called Ripening: lasts 37 days. Fifth full moon on day 7 Sixth full moon day 36. Month 5: called Harvest; lasts 36 days. Seventh full moon day: 28 Month 6: called Autumn; lasts 37 days. 8th full moon day 21 Month 7: called Transition: lasts 36 days. 9th Full moon day 13 Month 8: called The Big Chill lasts 37 days. 10th Full moon day: day 6, 11th full moon day 35. Month 9: called the Deep Freeze lasts 36 days. 12th Full moon day 27. Month 10: called the Thaw. Lasts 37 days. New year: 1stth Full moon day 20th

Year 2 Month 1 Budding: lasts 36 days . full moon day 12