

The Annual Cycle of the Seasons and the Yurt

by Ken Lassman, author *Wild Douglas County* www.kawvalleyalmanac.com

The year is caused by the earth revolving around the sun in almost a perfect circle.
The yurt is a circular structure.

When the sun's path in the sky is higher, the earth warms and we have spring and summer.
When the sun's path in the sky is lower, the earth cools and we have fall and winter.
This happens because the earth's axis is tilted, making the sun's path go up and down as the earth revolves around the sun.

This is why the seasons are a cycle and why the year has no real beginning or end.

This is why the yurt is a perfect model for the cycle of the seasons:

- just like the year, the circular yurt has no beginning or end.
- just like the seasons, spring always follows winter, autumn always follows summer.
- look to the north, the direction of the North Pole, and you see the winter months.
- look to the east, the direction of sunrise, and you see the spring months.
- look to the south, the direction of the equator/noon, and you see the summer months.
- look to the west, the direction of sunset, and you see the fall months.

The plants and animals time their activities to occur at the best time of the year for the young to grow strong and survive into adulthood so the species can continue.

Early spring flowers are short and bloom quickly before the trees leaf out, so they don't need to grow as big and strong as the mid-summer flowers who must compete with tall grasses and hungry animals.

Deer mating season is in late fall so that the newborn fawns are born in spring when there is plentiful food and warmer temperatures to grow up in.

And so it is with each plant and animal. This is called ecological time. Studying the patterns of the seasonal unfolding of a place is called phenology. Each place on earth has its own unique phenology.

See if you can figure out why what you see in nature is happening at that time of year. Take a picture of it and see if the same time next year, the same thing is happening. And if it happens earlier/later, why is that? Droughts, floods, heat waves and cold snaps can move the timing around some, but year in-year out, the patterns and sequences hold up.

The changes in the climate caused by increasing levels of greenhouse gases is also changing the seasons, as plants and animals are gradually moving toward the poles to adapt to the warmer, longer summers and milder winters. Scientists say that the intensity and frequency of extreme weather events is also increasing, which affects the natural world. Maybe you can chart those changes and figure out how to help nature adapt!

You are an animal on this planet. See what the plants and animals are doing on your birthday and observe that each year as you grow older. See if your "birthday plants and animals" change what they are doing between now and when you grow old. Remember, if you move, you will be moving in ecological time, too, so you will have to start a new "birthday nature diary" at each place, and let someone who stays behind continue your observations. Hidden Valley would love to have you share what you've learned from your observations here. And don't forget to share what you've learned with your children and grandchildren.