

RDQ patterns.com e-news

sensing SPRING

The ability to **“sense spring”** is one of the great miracles of animal life in my opinion. Its pretty amazing that animals can tell when there is increasing daylight and decreasing night, and sense an increase in temperature while they hibernate, process this into metabolic events, then know its time to "wake up" during the early months of spring. What a miracle that trees, shrubs and perennials sense temperature and light-dark ratios also. Its clear that these mechanisms are not really very well understood scientifically. When I googled to find out what the scientists had to say about molecular mechanisms for sensing change in temperature and light by plants, I really didn't come up with much. This is nuts!!, (no pun intended) there should be tons of research already done on the topic. Knowing these details is the basis for intelligent use of our natural power and resources. Not very many research titles appeared (searching the National Library of Medicine) one in particularly mentioned that there is molecular cross-talk between mechanisms for sensing light **AND** temperature, which is nice. I surmise that a similar cross-talk exists in animals.

I learned a new word while searching around for the biological mechanisms that stimulate plant growth in the spring-- "vernalization". We all know the root word "vernal" remembering the "vernal equinox."

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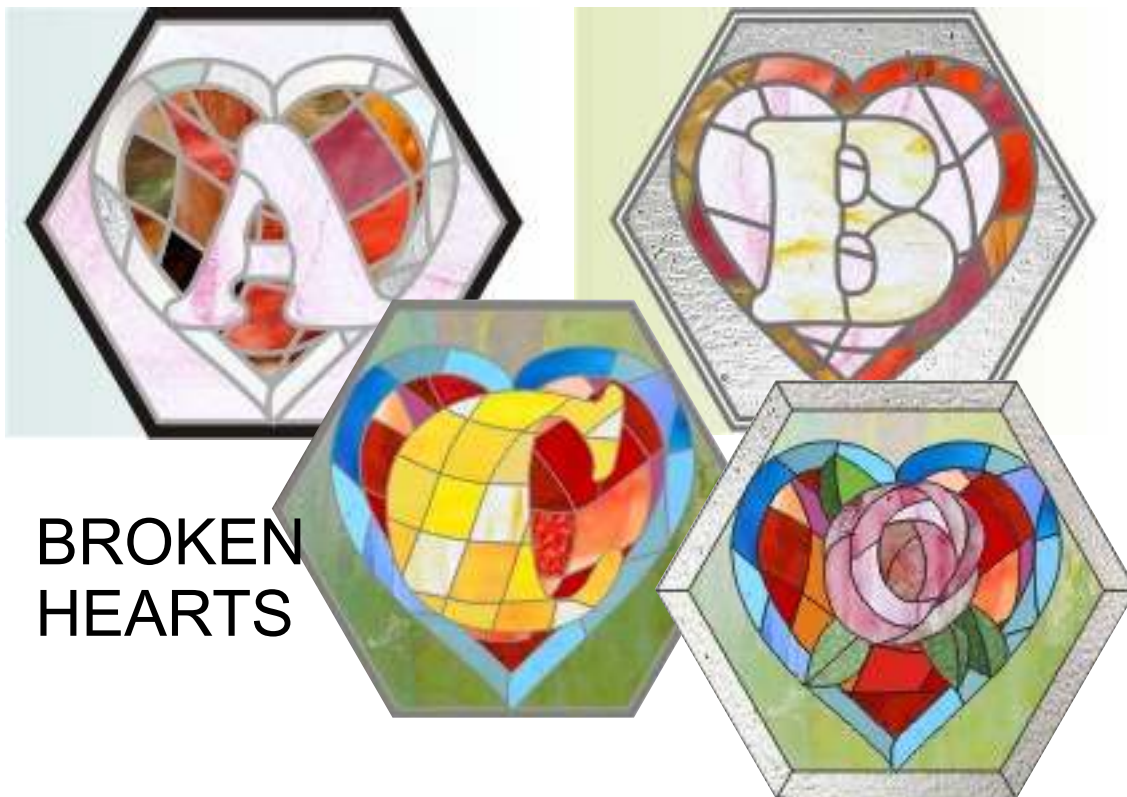


new patterns

Vernalization (vernalisation - British English dictionary) is the acquisition of the competence to flower in the spring by exposure to the prolonged cold of winter (*ah, yes, temperature.. but HOW?? do they sense it*). Latin word vernus, means **of the spring**. It is interesting that the cue to flower can persist in the plant for many months. And be regulated by additional cues (*like WHAT??*). Case in point would be the August lily, which has already sent up huge amounts of foliage this spring. The leaves die back to the ground by June, totally removing any trace of the plant, BUT the first of August (*just like clockwork*) the plant sends up a single spike with flowers at the top. I always marvel to myself, how in the world does that plant know its exactly August 1st. Does the plant "remember" the cold, and "sense" the retreating sunlight hours?, initially for vernalization, and then after many months, by a different cue, come to flower?.

What are the molecular **mechanisms** that plants use to sense temperature in the ground during winter, and the impending arrival of spring? my question is still answered. FREEBIE pattern to and "space" in next month's newsletter for anyone who sends me the information.

23 new patterns in April (search NEW PRODUCTS). Thanks for your business as always, and have a great day.

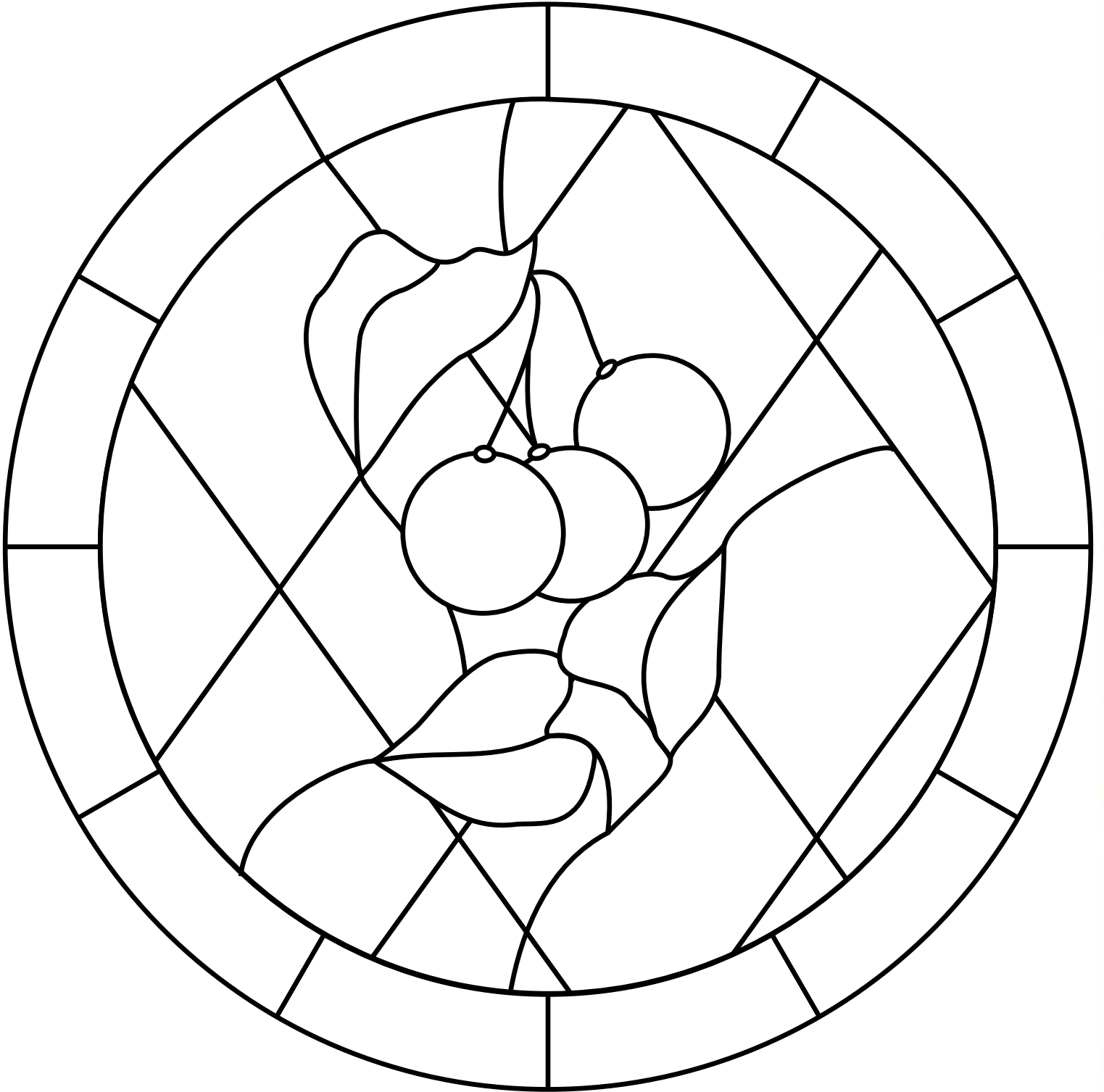


BROKEN
HEARTS

**For a freebie stained glass pattern write me a
review of "VERNANIZATION"**

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pattern for May



Cherries in the round