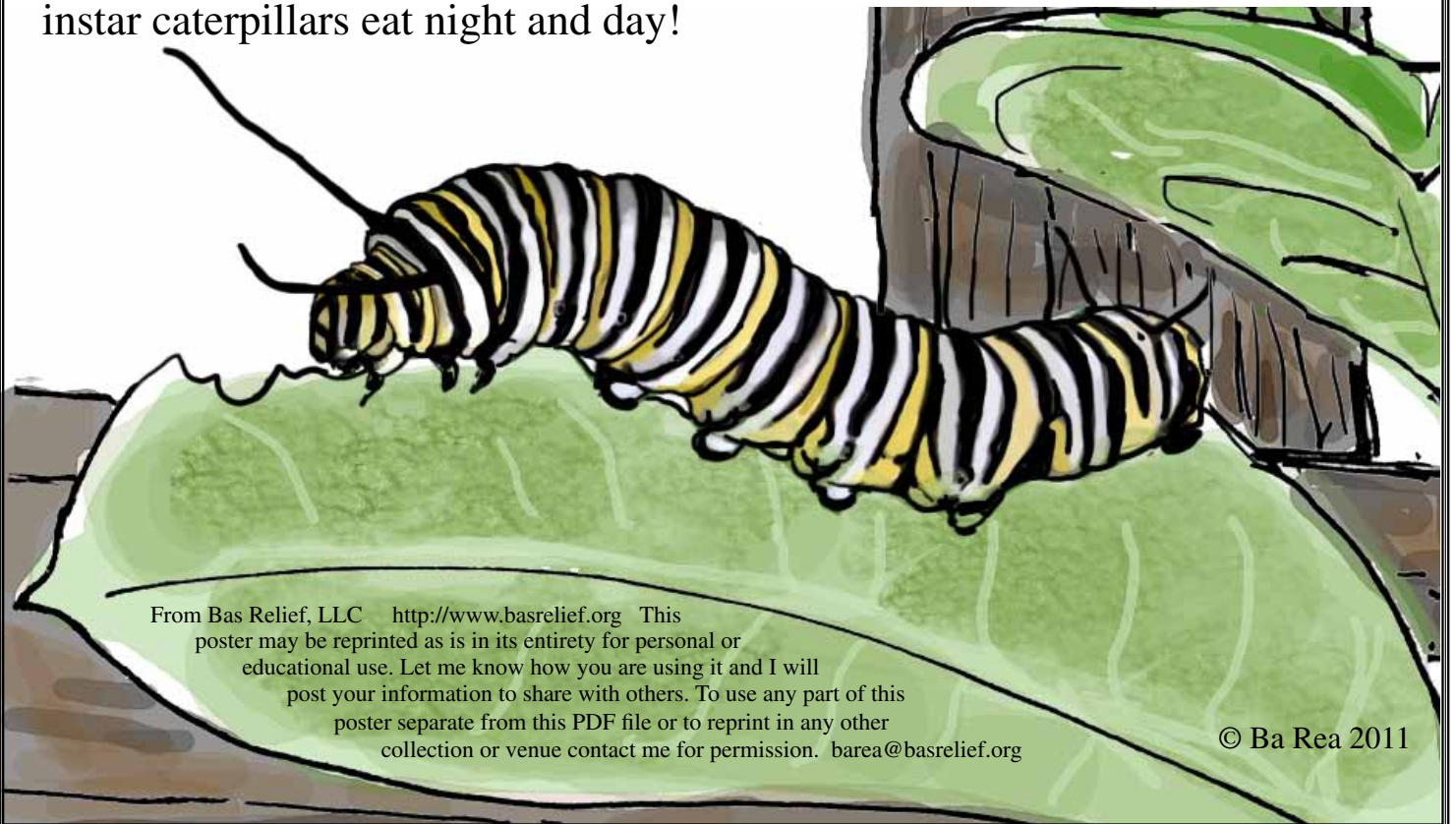


# Monarch Magic

## Caterpillar

Monarchs are insects and all insects have exoskeletons—a tough outer layer that gives the insect its shape and support, much like our bones do for us. The exoskeleton does not grow and it does not stretch very much. As it grows, the caterpillar must shed it, or “molt,” when it gets too tight. When it is time to molt, the caterpillar uses its silk threads to make a mat to hook its back legs onto and secure the old exoskeleton. The part of the exoskeleton covering its head pops off and the caterpillar crawls out of the outgrown exoskeleton—much like you would crawl out of a sleeping bag with a stuck zipper. As the caterpillar wriggles free of the old exoskeleton, the new exoskeleton, which is still soft and pliable, rapidly expands. Soon it will be tough just like the old one.

The caterpillar molts to become a bigger caterpillar 4 times. Scientists classify caterpillars by how many times they have molted. When it first hatches, it is said to be a 1st instar caterpillar. When it molts the first time it becomes a 2nd instar caterpillar. Each time it molts it becomes the next instar. A full grown, 2.5 inch long caterpillar is a 5th instar caterpillar. 1st through 3rd instar caterpillars eat all day and sleep at night, but 4th and 5th instar caterpillars eat night and day!



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