

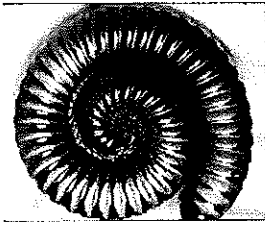
Nature Kids

Make a millipede!

Have you visited Wanda the giant millipede in the Discovery Rooms?
You can make a model of her with this easy craft!

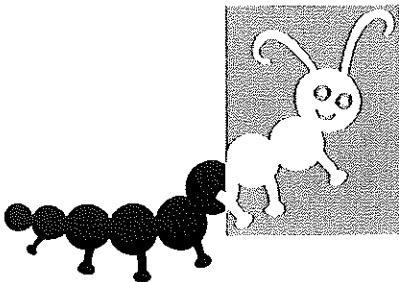
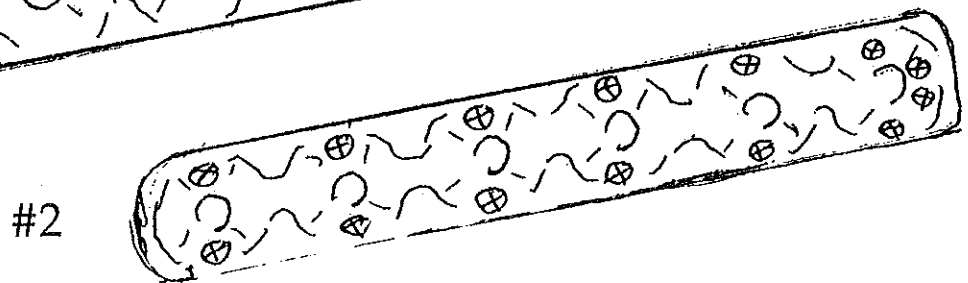
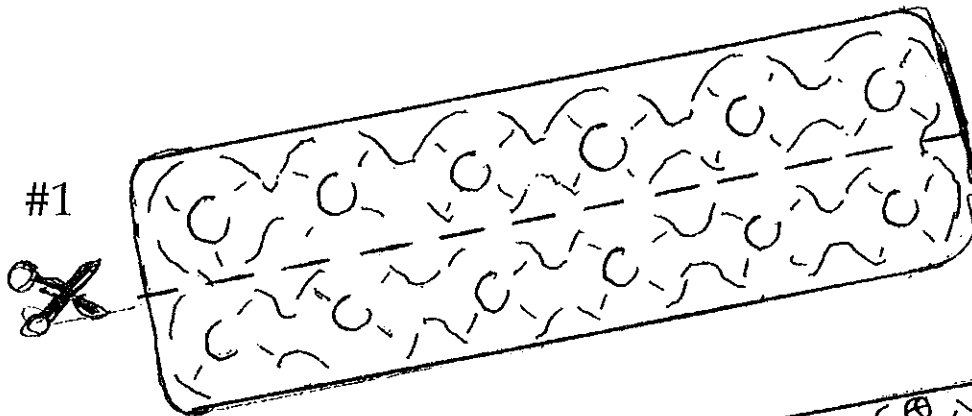
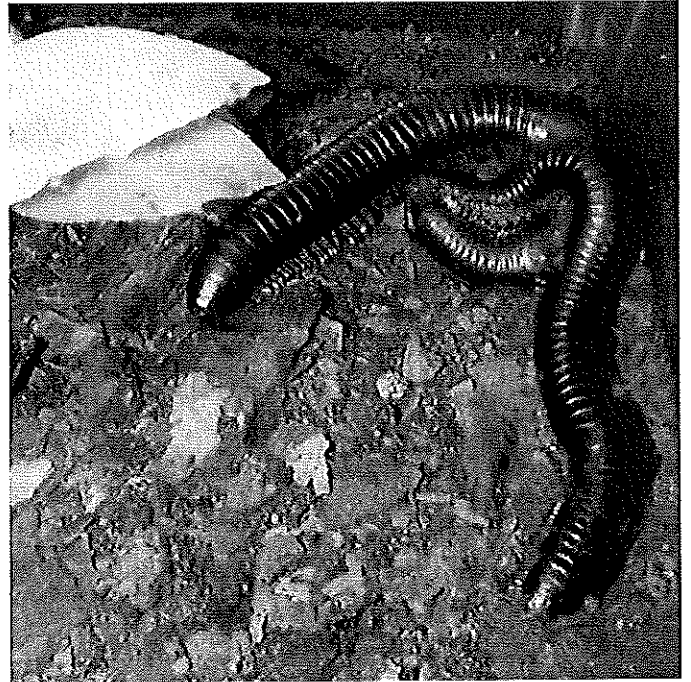
Materials:

One egg carton
Pipe cleaners
Scissors
Hole punch



How to do it:

1. Cut the egg carton in half lengthwise (See #1)
2. Punch one hole in each side of each section of the carton (See #2)
3. Cut the pipe cleaners in half
4. Stick two pipe cleaners through each section and bend down.
5. Punch two holes in the "head" section and put one pipe cleaner through both as antennae. (See #3)
6. Color your millipede with your favorite colors



#3



hole punch



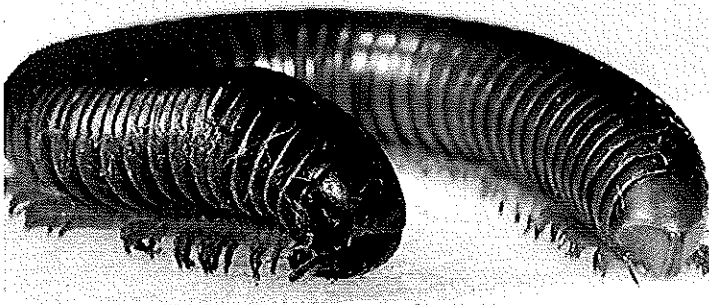
Bring your creation by to visit Wanda!

Teacher's Corner

Meet the Millipedes

(or, Why Wanda doesn't wear shoes)

Millipedes (from the Latin "Milli", thousand, and "pede" feet) are Arthropods, relatives of insects, spiders, and crustaceans (shrimp, lobsters and crawdads). They have long, rounded, segmented bodies, ranging in length from 2 mm to 300 mm (1/8 inch to 1 foot). Two pairs of very short legs are attached to each segment (except the first 2 or 3 behind the head, which have only one pair each). The head has two short antennae, a simple mouth and eyes. Each eye consists of 4 to 90 lensed *ocelli* grouped together on the front or side of the head. However, none of the species see very well and most use their antennae to seek out safe places and food.



Although their name means "thousand feet", none actually have that many. Most have 100 - 300 legs, the record holder (*Illacme plenipes*) comes in with around 700 legs (350 pairs). When they walk, each pair of legs moves as a unit and is slightly out of phase with the neighboring pairs. This creates the wave-like motion you can see when you watch one walk. The wave generally begins at the back and runs forward toward the head. (Check this out for yourself by watching Wanda the next time you are in the Discovery Rooms.) Millipedes have a hard exoskeleton that protects the soft organs inside. When disturbed, a millipede will coil up with its head in the center of the coil and the hard skeleton facing out. They breathe through spiracles, tubes, located along the underside of the body near the leg attachments.

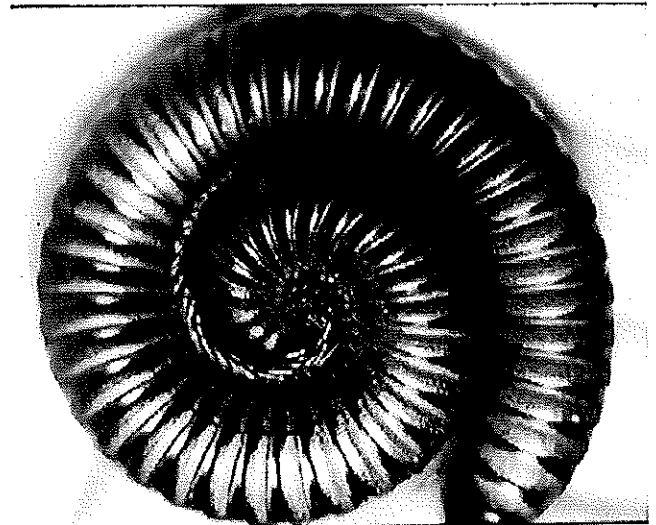
Millipedes are attracted to dark, cool, moist environments. They live under leaves, needles and dead plant debris, or in cracks and crevices or under rocks and logs. Generally nocturnal, millipedes become active after dark. They feed on living and decomposing vegetation, occasionally adding a dead snail, earthworm or insect to their diet, acting as beneficial "recyclers" of organic matter. They don't tolerate extremely wet or dry soil and will move to better locations as necessary.

Millipedes are generally harmless to people, neither feeding on buildings (like termites), nor biting or stinging (like some ants or bees). They do, however, have glands that can produce an irritating, smelly fluid. People handling

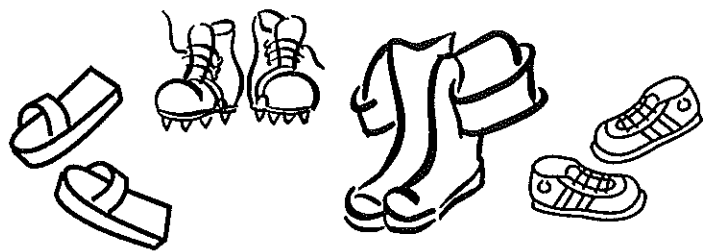
millipedes may notice a lingering odor on their hands. A good wash with soap and water will usually solve the problem. Occasionally, people sensitive to insect venom will be irritated by the millipede fluid.

For such small animals, millipedes are long-lived, some reaching a ripe old age of seven (years). In areas with severe winters, they will over-winter as adults. In spring or summer the females will lay between 20 and 300 eggs in the soil, generally singly or in small groups. An individual millipede can take several months or several years to grow to maturity, depending upon the species.

Altogether, there are about 10,000 species of millipedes living today. The oldest fossil millipedes date from the Silurian period, 400 million years ago. Some past millipedes were the largest terrestrial invertebrates ever, reaching 1.8 meters or 6 feet in length and .45 meters or 1 1/2 feet wide! (Just think how many legs they had!)



So, have you figured out why Wanda doesn't wear shoes?



(Because, while she has plenty of feet to put them on, she has no hands to tie the laces!)

See the "Nature Kids" page for instructions to make your own millipede!