**Madagascar Periwinkle**
*Catharanthus roseus*

**Plant Facts**
Many people have relatives of the Madagascar Periwinkle growing in their yards as ground cover. It is a small plant with showy pink and white flowers. The Periwinkles that provide medicinal value grow in Madagascar.

**Medical Compound Found in Plant**
Vincristine

**Chemical Formula of this Compound**
C21H18N4O10

**Effect of the Compound on the Human Body**
Side effects from vincristine: Commonly it causes hair loss, loss of appetite, and headaches. It works by stopping cells from dividing properly.

**Place the correct Medicine Card here!**

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**Pacific Yew Tree**
*Taxus brevifolia*

**Plant Facts**
This splendid tree is native to the Pacific Northwest of the U.S. Almost every part of the tree is poisonous. Taxol is an important medical compound discovered in the 1960s.

**Medical Compound Found in Plant**
Taxol

**Chemical Formula of this Compound**
C46H72NO14

**Effect of the Compound on the Human Body**
Normal cells have features called microtubules that break down and reassemble during cell division. Taxol interrupts this process so that cells can't grow and divide efficiently.

**Place the correct Medicine Card here!**
**Deadly Nightshade**
*Atropa belladonna*

**Plant Facts**
The berries of Deadly Nightshade are indeed deadly! The shiny black berries are sweet to the taste but just a few of them can prove fatal.

**Medical Compound Found in Plant**
Atropine

**Chemical Formula of this Compound**
C_{17}H_{21}O_{3}

**Effect of the Compound on the Human Body**
Causes the pupil in eyes to expand.

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**Yam Species**
*Dioscorea species*

**Plant Facts**
Yam species are found on several continents. They have tubers in the ground (like potatoes), which have medical value. The Mexican yam is the species that provided the medical breakthrough.

**Medical Compound Found in Plant**
Diosgemin

**Chemical Formula of this Compound**
C_{27}H_{24}O_{8}

**Effect of the Compound on the Human Body**
Diosgemin allows the female hormone progesterone to be easily synthesized. Certain levels of progesterone inhibit ovulation, the release of an egg from a woman's ovary.
PEPPERMINT/MINT SPECIES
Mentha species

Plant Facts
Menthol comes from oil of peppermint and other mint species. It has been used by people for hundreds of years in a wide variety of ways.

Medical Compound Found in Plant
Menthol

Chemical Formula of this Compound
C10H20O

Effect of the Compound on the Human Body
Menthol acts on certain nerve cells that tell the body when it is cold. Menthol tricks these receptors into thinking it is cold when it is not. Thus, it makes the body feel cool.

Place the correct Medicine Card here!

FOXGLOVE
Digitalis lanata

Plant Facts
Foxgloves are tall plants lined with bell-shaped flowers of various colors. You can often see them in people's gardens! The common garden variant (Digitalis purpurea) has been used medically, but Digitalis lanata is most commonly used.

Medical Compound Found in Plant
Digoxin and digitoxin

Chemical Formula of this Compound
C42H54O14 and C49H66O13

Effect of the Compound on the Human Body
Digoxin has been used for hundreds of years on people suffering from atrial fibrillation and irregular heart beats.

Place the correct Medicine Card here!
**Wormwood**
*Artemisia annua*

**Plant Facts**
This sweet-scented, bushy plant has been introduced to the Eastern and Central United States, growing in many waste areas throughout. Most of the plants grown for medicine are from China and East Africa.

**Medical Compound Found in Plant**
Artemisinin

**Chemical Formula of this Compound**
\(\text{C}_{15}\text{H}_{24}\text{O}_{5}\)

**Effect of the Compound on the Human Body**
Artemisinin kills certain one-celled creatures called protozoa.

**Place the correct Medicine Card here!**

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**Meadow Saffron**
*Colchicum autumnale*

**Plant Facts**
This plant looks much like the crocus that blooms in doorways in early spring throughout the United States.

**Medical Compound Found in Plant**
colchicine

**Chemical Formula of this Compound**
\(\text{C}_{9}\text{H}_{13}\text{N}_{3}\text{OS}\)

**Effect of the Compound on the Human Body**
Colchicine dissolves uric acid crystals. Uric acid occurs in human blood and is excreted by the kidneys in people's urine. Too much uric acid in the blood can cause tiny needle-shaped crystals to collect in skeletal joints.

**Place the correct Medicine Card here!**
### Opium Poppy

**Papaver somniferum**

**Plant Facts**
The Opium Poppy is the source of several very helpful medical compounds.

**Medical Compound Found in Plant**
- Morphine

**Effect of the Compound on the Human Body**
- Bind to certain nerve cells, preventing them from communicating the feeling of pain.

**Chemical Formula of this Compound**
- C_{17}H_{14}N_{2}O_{3}

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### Chondrodendron Tomentosum

**No English Common Name**

**Chondrodendron Tomentosum**

**Plant Facts**
Chondrodendron Tomentosum is a vine that grows in South American rain forests. Indians have used this plant as a source for arrow poison when they hunt.

**Medical Compound Found in Plant**
- Tuberine

**Effect of the Compound on the Human Body**
- Tuberine blocks motor nerve transmission, causing muscles to relax so much they actually stop contracting. It first affects toes, wrists, eyes, neck, and then arms and legs. Too much can relax breathing muscles so that lungs stop working.

**Chemical Formula of this Compound**
- C_{57}H_{44}N_{2}O_{8}

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**Place the correct Medicine Card here!**
**Mayapple**

*Podophyllum peltatum*

**Plant Facts**
The mayapple is a lovely woodland plant found in Eastern North America. Related species in other parts of the world are used for similar medical reasons. The plant's rhizome (underground stem) from which the roots grow is the source of poisonous yet medically helpful compounds.

**Medical Compound Found in Plant**
Podophyllotoxin

**Effect of the Compound on the Human Body**
Podophyllotoxin is an antineoplastic, preventing cells from dividing.

**Chemical Formula of this Compound**
C_{24}H_{22}O_{6}

**Place the correct Medicine Card here!**

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**Snowdrops**

*Galanthus species*

**Plant Facts**
Snowdrops are small bulbs that emerge with lovely flowers in late winter. Many gardeners plant them in the U.S., and they are found on several continents.

**Medical Compound Found in Plant**
Galanthamine

**Effect of the Compound on the Human Body**
Galanthamine inhibits the loss of special neurons in the brain, called acetylcholine-producing neurons.

**Chemical Formula of this Compound**
C_{13}H_{24}NO_{3}

**Place the correct Medicine Card here!**
**Calabar Bean**  
*Physostigma venenosum*

**Plant Facts**
The Calabar bean is a creeping plant that grows in West Africa. Its seeds are extremely poisonous. These seeds are also the source of the medical compound physostigmine.

**Medical Compound Found in Plant**
Physostigmine

**Chemical Formula of this Compound**
C₁₉H₂₂N₂O₂

**Effect of the Compound on the Human Body**
Physostigmine constricts the pupil of the eye. It also reduces the pressure in the eye.

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**Cinchona Tree**  
*Cinchona pubescens*

**Plant Facts**
Cinchona trees grow in the Andes mountains of South America. Quinine is obtained from the bark of these trees.

**Medical Compound Found in Plant**
Quinine

**Chemical Formula of this Compound**
C₂₀H₂₄NO₄

**Effect of the Compound on the Human Body**
Kills certain one-celled creatures called Protozoans.

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Place the correct Medicine Card here!
**HAPPY TREE**
*Camptotheca acuminate*

**Plant Facts**
This medium-sized tree is native to Central China. Therefore, it is known as the "Happy tree."

**Medical Compound Found in Plant**
Camptothecin

**Effect of the Compound on the Human Body**
Camptothecin inhibits a basic enzyme that is needed in the process of DNA replication. The chromosomes can't unwind, and the transcription of the DNA information cannot occur. Ultimately, the cells die.

**Chemical Formula of this Compound**
C_{18}H_{11}N_{2}O_{4}

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**TEA PLANT**
*Camellia sinensis*

**Plant Facts**
The evergreen shrub or small tree is native to mainland South and Southeast Asia. It is now cultivated in tropical and subtropical areas around the world.

**Medical Compound Found in Plant**
Theophylline

**Effect of the Compound on the Human Body**
Theophylline is a bronchodilator. This means that it works to relax the bronchial smooth muscles, thereby opening the air passages of the lungs, increasing airflow through them.

**Chemical Formula of this Compound**
C_{8}H_{10}N_{4}O