



## Nature Study

Each Friday morning, you will go through two of our nature cards. They are labeled in the upper right corner with the corresponding week. These are short, factual cards with images to help your child become familiar with objects in the natural world.

As you progress through our sessions, you may find it handy to keep your past nature cards in a binder for easy reference when your children come across a familiar object. These seeds you are planting will grow into a wonderful garden of knowledge for your children in years to come.

As you explore nature outside your home, watch and listen for newly discovered delights. Most of all, remember...

*"Point to some lovely flower or gracious tree, not only as a beautiful work, but as a beautiful thought of God."*

~ Charlotte Mason

Nature Study

# 1



## Citrine

- Citrine is the second most popular quartz gem.
- Citrine can be found in the Ural Mtns. of Russia, France, and Madagascar.
- Citrine, by definition, is the yellow selection of quartz.
- The name Citrine is derived from the French word citron, which means lemon.
- Natural Citrine is very rare. Most Citrine gemstones you can buy are made.
- Citrine can be made by heat-treating purple amethyst or smoky quartz. Different temperatures give different tones of yellow.
- When Citrine is made, it is usually heat-treated by the miners, not scientists as you might think.

# 1



## Amethyst

- Amethyst is the most popular quartz gem.
- Amethyst, by definition, is the purple selection of quartz. It is also a precious stone.
- This precious stone is found in Brazil, Uruguay, and South Korea.
- Amethyst is February's gemstone.
- Color centers in quartz are made when a certain amount of iron is irradiated. When something is irradiated, it has been exposed to radiation. Rocks have natural radiation in them. These color centers interestingly give amethyst its color.
- This gemstone has been known, as far as we can tell, since around 3,000 B.C.

# 2



## Jade

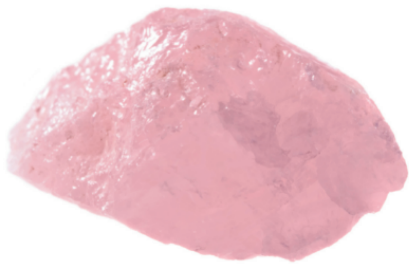
- Jade has six natural colors: green, lavender, red, yellow, white and black. Green is the most treasured.
- It can be found in China, Russia, the Swiss Alps, Guatemala, New Zealand, North America, and Western Canada.
- Jade is rated a 6-7 on the mohs scale, but is very tough.
- Jade was used to make weapons, but is really only made for ornamental purposes today.
- In order to determine if a piece of jade is real, people will hit it with a hammer. If it is real jade, the hammer will bounce off the stone.
- In Beijing, they made a 20 ft. long ship out of jade!
- Jade is very precious to Chinese culture.

# 2



## Tiger's Eye

- Tiger's eye, by definition, is a yellowish brown semiprecious quartz that has a very silky lustre.
- It can be found in South Africa and Western Australia.
- The incorporation of iron and quartz give the stone a chatoyancy look.
- Roman soldiers carried Tiger's eye to war, because they thought it would give them a tiger's strength and bravery.
- Tiger's eye starts out as a fibrous blue mineral called crocidolite, but when quartz becomes integrated in crocidolite's blue fibers, two stones can be made, one of them being tiger's eye.
- Tiger's eye is usually a metamorphic rock.



3

## Rose Quartz

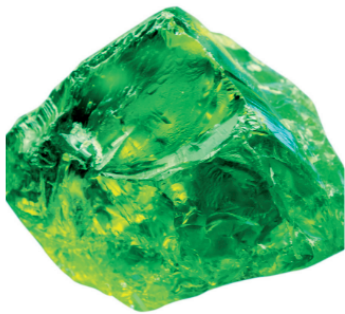
- Rose quartz, by definition, is a semitransparent pink quartz.
- It is found in Madagascar, South Africa, Brazil, and an area in South Dakota.
- Titanium (small amounts of it) most likely give Rose quartz its pink color.
- The mohs scale measures a mineral's hardness. Rose quartz is rated 7 on the mohs scale, meaning it is durable.
- Rose quartz is an igneous mineral, so it is made when molten or magma rock from deep in the earth cool down.
- To some, rose quartz is an emblem of love and beauty.
- Rose quartz, along with garnet, is January's birthstone.



3

## Morganite

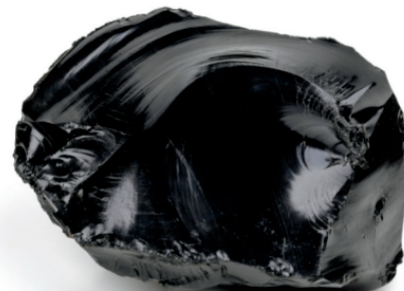
- Morganite was named after an important banker, J.P. Morgan.
- Morganite, by definition, is a pink, transparent selection of beryl.
- Usually how vibrant the color is depends on the size of a morganite gemstone.
- Manganese gives morganite its pink color, but morganite can also be a pale orange. Vibrant colors in morganite are not common.
- It can be found in Brazil, Madagascar, Afghanistan, China, Mozambique, Namibia, Russia, Zimbabwe, California, and Maine.
- It ranks as a 7.5 to 8 on the mohs scale. So as long as it is properly cared for, it should not get scratched or broken.



4

## Emerald

- An emerald, by definition, is a bright green precious stone.
- Emerald is found in Colombia and Zambia.
- The biggest emerald ever found, the Bahia emerald, is 840 pounds.
- Emeralds are made green by a low amount of chromium, and sometimes vanadium.
- An emerald's measurement on the mohs scale is 7.5-8, indicating its hardness is very poor.
- Emerald is May's birthstone.
- Cleopatra loved emeralds! They were one of her favorite stones.



4

## Obsidian

- Obsidian, by definition, is a hard, dark glasslike rock made by the solidification of molten lava.
- Obsidian is found wherever there is volcanic activity.
- Obsidian is an igneous rock.
- Obsidian can become light enough to float on water! Gases inside obsidian can get big enough to become bubbles, and based on the size of the bubbles, obsidian can float!
- Obsidian that can float on water is called pumice.
- When felsic lava cools too quickly, it cannot form crystals, or, at least, not very many. So instead, it cools as a glass. This is how obsidian is made.