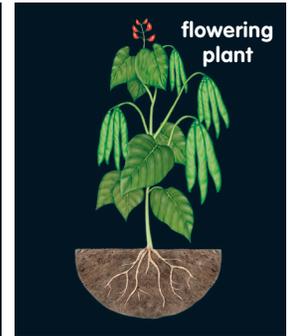
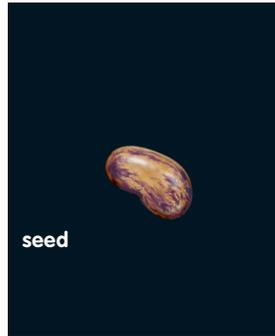


Use the cards to help reinforce science concepts.

Bean plant

Beans need dirt (soil), water, and sunlight to grow. Bean plants start as **seeds**. The seeds sprout to form a **seedling**. A seedling uses food stored inside the seed to help it grow roots. As the **young plant** continues to grow, it forms leaves that capture sunlight. The bean plant uses the sunlight to make its own food. As the bean plant gets older, the plant makes flowers and then fruit. The fruit is the bean pod that holds "beans," which are really seeds. The new beans can grow new bean plants.



Monarch Butterfly

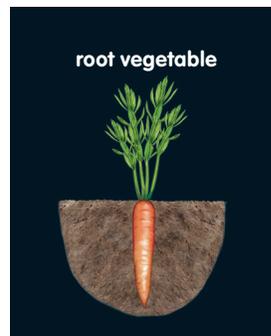
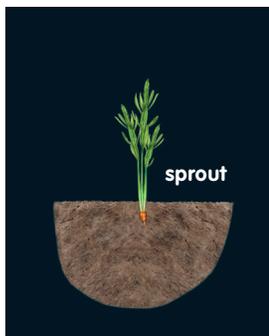
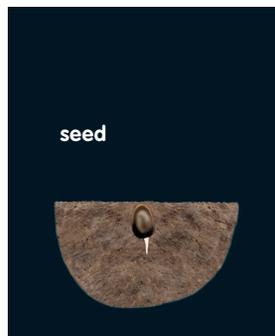
A monarch butterfly first starts as an **egg**. A **caterpillar** (larva) then hatches from the egg after 5 to 10 days and eats for about three weeks. Then the caterpillar forms a **chrysalis** (pupa) and changes its body through a process called metamorphosis. After another 2 to 3 weeks, the **adult butterfly** hatches from the chrysalis.

Monarch butterflies live about 9 months. They also migrate by flying to warmer lands to avoid the cold during winter months.



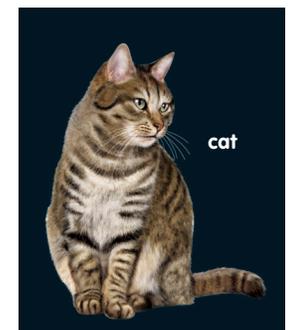
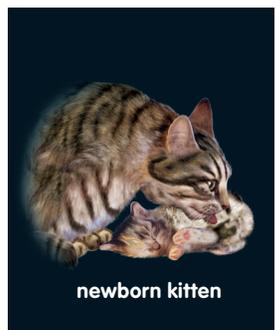
Root Vegetable

Carrots are **root vegetables**. The roots of the carrot plant **sprout** from the **seed** and grow downward, underneath the dirt. Above ground, the leaves of the carrot collect sunlight for the carrot to make its own food. The swollen orange root of the carrot is mostly made of water. Different kinds of carrots can make purple, white, red, or yellow roots. The largest carrot ever grown was over 15 feet (5 m) long!



Cat

A **kitten** is born live from its mother. When first born, a kitten's eyes are closed and it cannot lift its own head. It takes about a week for the kitten to open its eyes. A kitten starts life drinking milk from its mother. After about four weeks, a kitten will start eating solid food. As it continues to grow, a **young cat** begins to look more and more like an adult. A kitten is considered an adult cat after about a year of growth. However, young cats can start taking care of themselves as soon as nine weeks after birth.



Use the cards to help reinforce science concepts.

Dandelion

Dandelions sprout from tiny seeds like all plants. Roots hold the dandelion in the ground and help capture water. The dandelion's stem holds the plant up and gives it support. The leaves capture sunlight for the dandelion to make its own food. After a young dandelion grows, it forms a **bud** that blooms into a **flower**. The flower then makes **seeds**. A dandelion uses the wind to help spread its seeds to create new dandelions.



Salmon

After hatching from **eggs**, salmon are called **alevin** and still have part of the egg sacs attached to their bodies for food. These tiny fish grow into small fry without yolk sacs, and then into larger **juvenile** fish, also called smolt. This growing process takes several months to two years depending on the kind of salmon. Smolt then make the journey from the fresh water streams out to salt water oceans. In the ocean, a salmon can take two to five years to fully grow. Adult salmon always return to the same place they were born to lay new eggs.



Flower

Flowers are the parts of plants that produce fruit and **seeds**. There are thousands of different kinds of plants that have bright, attractive flowers. Like all plants, they need soil, water, sunlight, and air to survive.

The tiny dust inside flowers is called pollen. Pollen helps make new flowers. Bees, butterflies, and other insects often get pollen dust on their bodies and spread it from flower to flower to help create new seeds for new plants.



Chicken

A chicken starts as an **egg**. The egg contains a yolk that helps provide food for the embryo growing inside. After about three weeks, a **chick** hatches from the egg. The chick has very soft feathers and is unable to fly. The chick loses its soft feathers and begins to grow thicker feathers as a **young chicken**. It takes about three months for a chick to grow into an adult **chicken**. An adult male chicken called a rooster or cockerel. An adult female is called a hen. A hen can lay one egg a day!

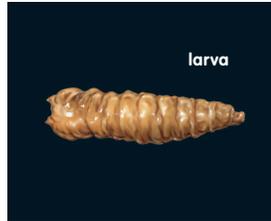
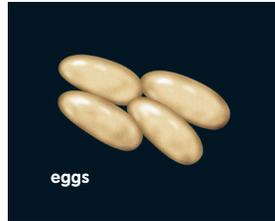


Use the cards to help reinforce science concepts.

Housefly

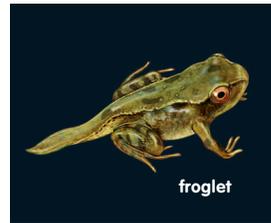
Houseflies start out as **eggs**. The eggs hatch into **larva**, or maggots, within 24 hours after they are laid. Maggots change into a harder pupa after about five days. Like butterflies, houseflies change their bodies through a process called metamorphosis. After metamorphosis occurs (3 to 5 days), an **adult fly** hatches out of the pupa. Another 2 to 3 days later, the newly adult fly is ready to lay its own eggs and start the life cycle all over again.

Houseflies can fly at the speed of about 5 miles (8 km) an hour. Their small size makes it appear they can fly much faster.



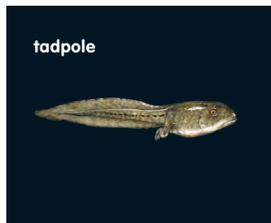
Frog

A frog's life begins as an **egg** in water. **Tadpoles** hatch from the eggs after 1 to 3 weeks, depending on the type of frog. The tadpoles undergo metamorphosis as their growing bodies change. The tails of tadpoles begin to shrink and arms and legs begin to grow. At first, the tadpole uses gills to breathe under water. As it grows, the gills disappear. The tadpole grows into a **froglet** that can breathe air using regular lungs. Finally, the frog is able to live on land. An **adult frog** takes 3 to 4 months to hatch, change, and fully grow.



Tadpole

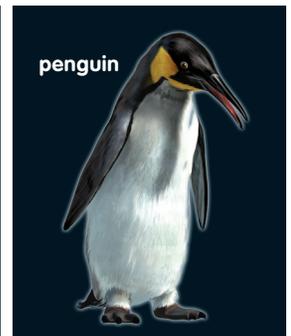
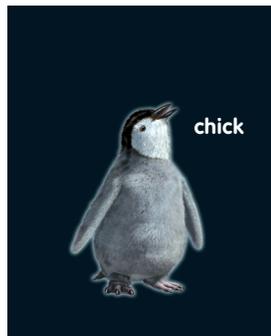
A frog is called a **tadpole** when it is in the second stage of its life cycle. A tadpole hatches from an egg and uses its gills to breathe under water. A tadpole begins life by feeding on algae in the water. The tadpole undergoes metamorphosis and begins to grow arms and legs. As it continues to grow, its tail begins to shrink and its body begins to take the shape of a frog. An older tadpole can start to feed on small water insects. After about 3 months, its arms and legs are fully developed and its tail is now a stub. At this stage, the tadpole is known as a **froglet** that will continue to grow into an adult frog.



Penguin

Penguins hatch from **eggs** like other birds. A baby penguin **chick** has soft, fluffy feathers. Chicks are fed food from the mouths of their parents. As they grow, the chicks lose their soft feathers and replace them with feathers that are oily and good for swimming in cold water. It takes 7-13 weeks for a chick to grow into a **young penguin** ready to swim. Once a **penguin** can swim, it is able to hunt food and survive on its own.

Male emperor penguins sit on eggs to keep them warm and hatch them.



Use the cards to help reinforce science concepts.

Pollination

Pollination is the way tiny dust inside flowers (called pollen) spreads from one flower to the next. Bees are one of many insects very important to the life cycles of flowers. Bees land on flowers to feed off the sweet nectar inside the flowers. As the bees move around the flower collecting nectar, the tiny pollen dust sticks to the bee's legs. When bees fly away and land on the next flower, pollen dust falls off their legs and mixes into the new flower. Without the help of the bees, flowers would have a very hard time spreading their pollen and creating new flowers.



Snake

Snakes are reptiles and most snakes start their lives hatching from eggs. A **baby snake** has a sharp egg tooth that helps cut open the tough eggshell, which feels like leather. A baby snake loses the egg tooth after it hatches.

Snakes are born ready to hunt. They do not need to be fed by their parents. In order to have room to grow, snakes shed their skins. They start **shedding** old skin by rubbing up against rocks and other rough things.

Some snakes, like rattlesnakes and boa constrictors, give birth to live young.



Human

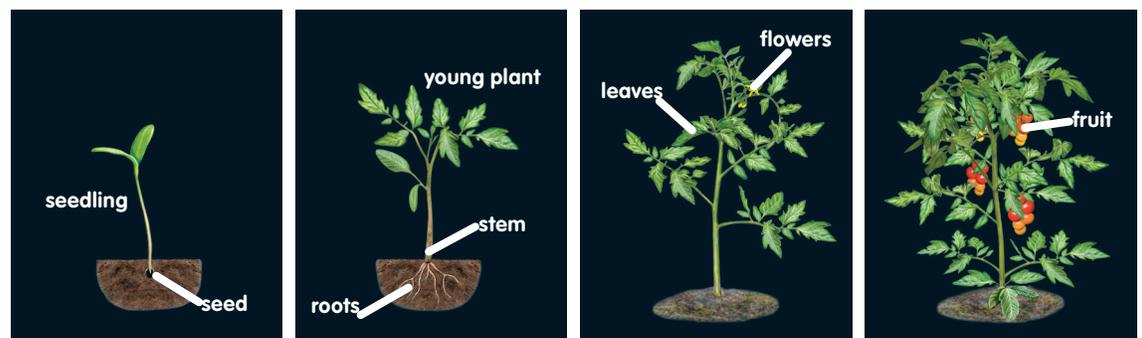
Human beings are mammals. Human mothers give live birth to their babies. A newly born baby is called an **infant**. Infants grow into toddlers after two years, and toddlers grow into children. Children are called **teenagers** during their first stages of becoming young adults. Humans become grown **adults** when they reach about twenty years of age.

A lot of changes happen on the inside of the human body as it grows. For example, an infant is born with over 300 bones in its body. But as adults, humans have just 206 bones.



Tomato

People have used the fruit of the tomato plant for cooking for thousands of years. Tomato plants sprout from **seeds** and quickly form roots to take hold in the dirt. The **roots** capture water and nutrients from the soil and pass them up the **stem** for the rest of the plant to use. **Leaves** capture sunlight and turn it into food for the plant to use and grow. The plant first grows **flowers** that then make **fruit**. The fruit starts off small and green, but grows into ripe orange or red tomatoes. The fruit also holds seeds that can be planted to grow new plants.



Use the cards to help reinforce science concepts.

Seasonal Change

Many places on Earth have four seasons. People often watch the changing of trees to signal a new season. **Spring** starts with cooler, wet weather that helps flowering trees make buds. The buds sprout into tiny leaves and flowers. The warm weather of **summer** allows trees to grow full leaves that capture sunlight for the tree to make its own food. In **autumn**, the green leaves stop making food and die. This often turns the leaves into bright, beautiful shades of red, orange, and yellow. In **winter**, flowering trees have no leaves and are not active. Trees in the winter wait until spring to start growing all over again.

