

Game of Life (Cycles)

Every living creature will go through a **life cycle** as they grow from infancy to adulthood. However, some animals have different life cycles than other animals. Many animals start off as very tiny babies and must be raised by their parents before they can set off on their own, and some animals undergo extreme changes and end up looking nothing like how they were born! In this activity we will be learning more about one such life cycle: the butterfly. Butterflies are insects that undergo **metamorphosis**. Butterflies first hatch from **eggs** into tiny **caterpillars** that must eat plants in order to grow. They need to eat *a lot*, to make sure that when they **pupate** into a **chrysalis** and eventually turn into **butterflies** that they have all the energy they need to make more eggs, starting the cycle over again!

Time Needed: 30-40 minutes.

What you'll need...

- Blank paper, either white or colored construction paper.
- Scissors
- Colors (crayons, markers, colored pencils, etc.!)
- 1 coin. This can be any coin of your choosing.

Words To Know...

- **Metamorphosis:** the act of something changing into another, ex. A caterpillar becoming a butterfly!
- **Pupate:** when a caterpillar forms into a chrysalis.
- **Chrysalis:** a hard outer shell protecting a caterpillar as it changes into a butterfly.
- **Migration:** when an animal, such as a butterfly, travels over a long distance from one place to another.



Getting Started

1. Either print out or draw your own game board. You can model it after the offered board, but you can change things and make it your own!
2. Color the board, and color all of the caterpillars, chrysalis', and butterflies. Make them as beautiful and unique as you want.
3. Now that you have your board and pieces colored, you'll want to set the board up.
4. First, place the caterpillars and eggs at the starting point of your game board. Next, put your chrysalis' at the center on a leaf. Finally, put the butterflies at the end, on the flower.
5. You can have as many players as you'd like, just make sure everyone has their own caterpillar, chrysalis, and butterfly!

How to Play

1. Flip the coin in order to move your caterpillars along on the leaves. Heads is 1 leaf/space, tails is 2 leaves/spaces.
2. When you get to the pupa at the midpoint of the board, put one of the pupa pieces over your caterpillar and continue to flip coins until you get to the end.
3. When you reach the flower, congratulate yourselves! You've become butterflies!
4. You can keep the board and pieces that you've created and play more, or you can use them as decoration for your room or toys. Feel free to print out or draw more caterpillars and butterflies so you can have a whole flock!

Challenge Cards

1. For an added challenge, print out the cards that came with the activity. You'll notice that each card has an event on it, either good or bad. You could also make your own if you'd like.
2. Draw these cards before each coin flip to see what you get!
3. Some of these cards will give you extra coin flips or turns, or will take a turn or a flip away! Replay the game with these challenge cards and see how much harder or easier becoming a butterfly is with these realistic events that affect even wild butterflies.



It's not just butterflies!

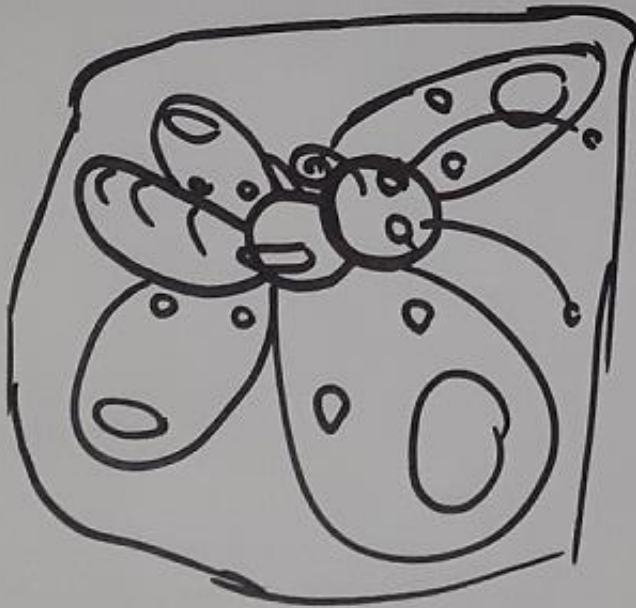
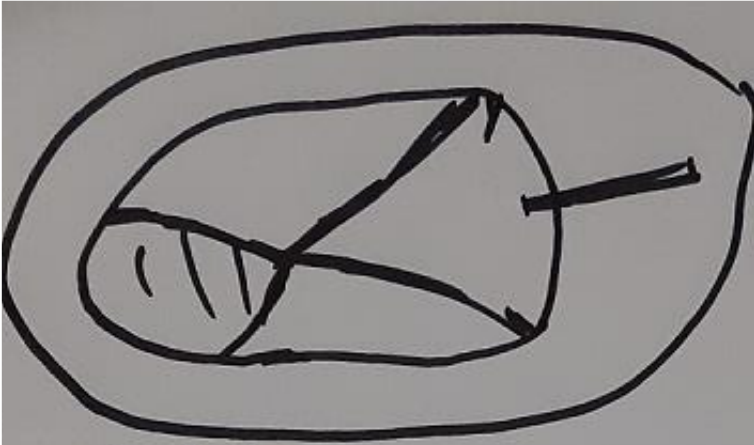
The following are a few extra activities you and your family can do if you'd like to learn more about butterflies and life cycles.

- Monarch Butterfly season occurs during the fall. Monarch Butterflies need milkweed plants in order to continue their life cycles, preferring to lay their eggs on these plants. You can help them out by planting milkweed in gardens, yards, or potters. You can even observe the life cycle in action!
- The Arizona Sister is a common butterfly that you can read about here: <https://bugguide.net/node/view/373394>. Unlike other butterflies, Arizona Sisters don't usually like flowers and will visit other sources of food instead. Can you find some around your home?
- Metamorphosis is common in the life cycles of many insects. Here are some insects you and your child(ren) can research, all of whom live in our own Arizona!: palo verde beetle, apache cicada, rhinoceros beetle.

- Not all insects have the same life cycles; some insects hatch as miniature versions of their parents and just get bigger! Can you find some insects like that?

Start





You found lots of nutritious leaves!
Move 2 spaces.

You can't find any milkweed plants.
Lose 1 turn.

A bird tried to eat you and you fell off your leaf! Go back 2 spaces.

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Your home was uprooted and you have to find another! Lose 1 turn.

Cold weather hits the meadow! Lose 1 turn.

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FEEDING FRENZY! All players flip a coin!