

Science – Life Cycle of the Butterfly

Here is a big word for you to remember: **metamorphosis**. Metamorphosis means that an animal changes in the way it looks and behaves as it develops. Most insects go through metamorphosis. So do frogs, as they change from eggs to tadpoles and then into frogs.

Metamorphosis can be **complete** or **incomplete**. In insects, incomplete metamorphosis has **3 stages**. These are the egg, the nymph and the adult stage. A grasshopper goes through incomplete metamorphosis.

Complete metamorphosis has **4 stages**. A butterfly goes through complete metamorphosis.

Stage 1 is the egg. Some butterflies only lay one egg at a time. Some lay their eggs in **clusters**. Each butterfly chooses a special kind of plant on which to lay its eggs.



Stage 2 is the **larva**, which hatches from the egg. It doesn't look like the adult. In a butterfly, the larva is a **caterpillar**. When he hatches the caterpillar starts eating right away. Each type of caterpillar only eats a certain type of leaf. The caterpillar grows quickly. As he outgrows his skin he **molts**, that means that he sheds the old skin that has become too tight.



Stage 3 is the **pupa**, which is also called the **chrysalis**. When the caterpillar is full grown, it stops eating and attaches itself with silk to a leaf or twig. It molts for the last time and the new skin forms the shell of the chrysalis. Inside the chrysalis, the caterpillar changes into a butterfly. When the butterfly is almost ready to **emerge** the chrysalis becomes **transparent** and the outline of the butterfly can be seen inside.



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Stage 4 is the **adult** stage. After about two weeks the butterfly emerges from the chrysalis and waits for its wings to dry. It pumps fluid into the veins in the wings from its stomach until they are fully **extended**.



When its wings are ready it practices flying. The adult butterflies mate. Then the female finds the right leaf on which to lay her eggs and the cycle starts again.

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Science – Life Cycle of the Butterfly Questions

A: How much do you know?

Here are some statements about metamorphosis. Some are correct and some are wrong. If you think the statement is correct put a big tick in the YES box. If you think it is wrong put a big cross in the NO box. The first one has been done for you.

1. All animals go through metamorphosis.
2. Complete metamorphosis has 4 stages.
3. A butterfly goes through complete metamorphosis.
4. A grasshopper goes through complete metamorphosis.
5. A caterpillar sheds its skin as it grows.
6. The caterpillar uses cotton to attach itself to a leaf.
7. The butterfly can fly as soon as it emerges from the chrysalis.
8. The butterfly lays eggs to start the cycle again.

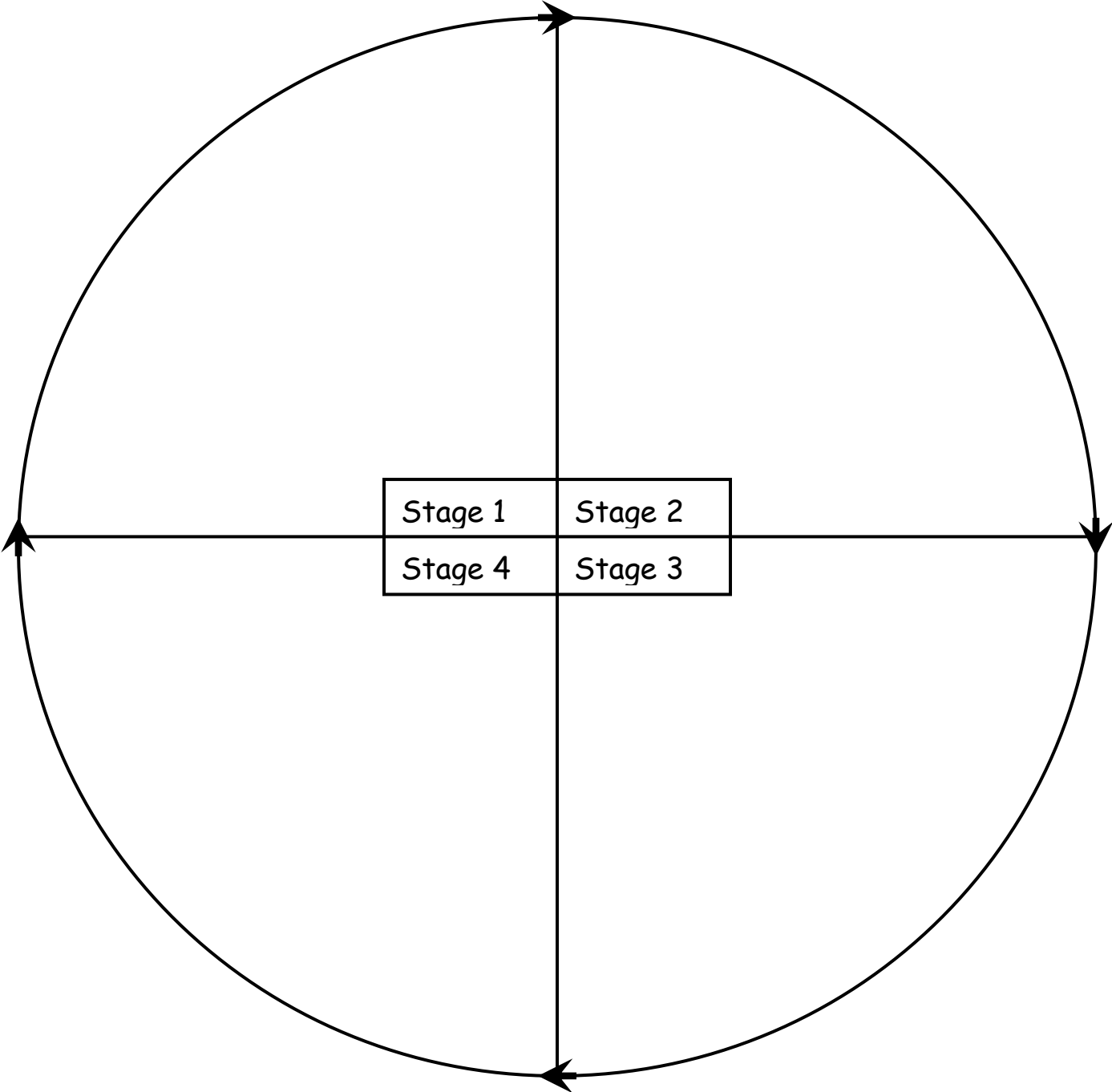
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

B: Draw the life cycle of the butterfly.

Can you draw the butterfly at all four stages of its metamorphosis? You need to draw them in the correct sequence. If you need some help you can look at the pictures in the reading. Use the circle on the next page for your drawings.

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Science – Life Cycle of the Butterfly Answers

Activity A

- | | |
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| 1. All animals go through metamorphosis. | NO |
| 2. Complete metamorphosis has 4 stages. | YES |
| 3. A butterfly goes through complete metamorphosis. | YES |
| 4. A grasshopper goes through complete metamorphosis. | NO |
| 5. A caterpillar sheds its skin as it grows. | YES |
| 6. The caterpillar uses cotton to attach itself to a leaf. | NO |
| 7. The butterfly can fly as soon as it emerges from the chrysalis. | NO |
| 8. The butterfly lays eggs to start the cycle again. | YES |

Activity B

The drawings should be recognizable and should follow the correct sequences for the stages: Stage 1: eggs; stage 2: caterpillar; stage 3: pupa; stage 4: butterfly.