

Baby Bug:  
Viviparous  
Aphid

by Izaak Gilchrist



This pattern shows you how to make an adult aphid which gives birth to a nymph (baby aphid).

Aphids are my favorite bug. “Bug” is actually a technical term that refers to a specific group of insects, so all bugs are insects but not all insects are bugs. Aphids are a type of **true bug**.

Gardeners usually hate aphids because they can be significant pests due to their incredibly high reproductive output.

Aphids are **viviparous**, which means they give live birth (like humans do). Even more unique to aphids is that they can reproduce via **parthenogenesis**, where the aphid makes a clone of herself without any male involved! This is a type of asexual reproduction.

Aphids have many generations in one year, and most of those generations reproduce asexually, but sometimes they produce male offspring and reproduce sexually. This makes sure there’s some genetic variation, but means that most of the time aphids don’t have to waste time looking for a mate.

Since they can reproduce without mating, they don’t even have to be born to start producing an embryo. Aphids are born pregnant! The term for this phenomenon is **telescoping generations**. The adult aphid contains her developing daughter, which contains a developing granddaughter.

It’s a little like how human females are born with all their eggs, except for us those eggs need to be fertilized before they can develop. This pattern doesn’t show how to make a third, tinier aphid, because the nymph won’t actually give birth until it’s done growing up.

I made my aphids green, but there are many species of aphids and even color variation within species. There are yellow, red, and black aphids, so you can make yours whatever color you like. I put a lot of cool bug facts and pictures throughout the pattern, but at the end of the document there’s a text-only barebones copy of the pattern.

The pattern assumes you have familiarity with common crochet stitches. It uses some abbreviations, listed on the next page.

I hope you enjoy the pattern and come away with a little love for these tiny biological wonders.



## Abbreviations

Mc - magic circle

Sc - single crochet

Dec - decrease (single crochet two together)

Inc - increase (single crochet twice in one stitch)

St - stitch

Ch - chain

BLO - back loops only (optional, adds some texture but you can make the pattern without it)

## Materials

Yarn in the color of your choice

3.5mm crochet hook

Darning needle

Safety eyes (you can probably sew on some black yarn at the end as eyes if you don't have any)

Scissors

Stuffing

Craft wire and wire cutters OR pipe cleaner

## Aphid nymph - with pictures and bug facts

Insects have hard exoskeletons, so to grow they need to molt. The stage between each molt is called an **instar**.

There are two main types of metamorphosis: **holometabolous** and **hemimetabolous**.

Holometabolous insects look completely different as babies than as adults, like how caterpillars look nothing like butterflies. Holometabolous insects have an intermediate stage between larva and adult called a **pupa**.

Hemimetabolous insects look basically the same throughout their lives, except adults have reproductive organs and often wings.

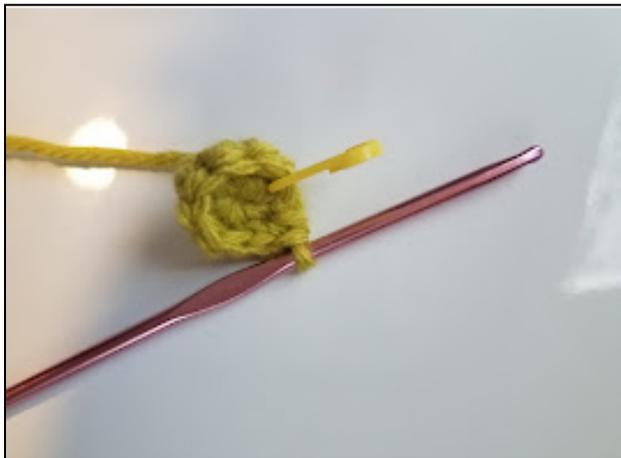
In hemimetabolous insects, the babies are called **nymphs**. In holometabolous insects, babies are called **larvae**.

True bugs, like aphids, are hemimetabolous, so the baby just looks like a smaller version of the adult. Other hemimetabolous insects include grasshoppers, praying mantises, and earwigs.

Butterflies, beetles, flies, and bees are all holometabolous. Sometimes holometabolous larvae live in completely different habitats than adults, like mosquito larvae which live entirely underwater.

### Body

Mc of 6 st.



1. (sc, inc) around
2. (sc, sc, inc)
3. Sc around
4. (Sc, sc, dec) around. Flip the piece inside out. Add two safety eyes.



5. BLO: (inc, sc) around. Using the back loop is optional but adds a ridge to separate the head from thorax.



6. Sc around. Stuff with filling.



7. BLO: (inc, sc) around. This ridge separates the thorax from the abdomen.

All insects have three main body regions: the head, thorax, and abdomen.

8-12 (5 rounds): sc around.



13. (sc, sc, dec) around.

14. (sc, dec) round. Stuff with filling.



15. (dec, sc) around.

16. (dec, sc) around.

17. Sc around. Cut the yarn and fasten off. Using a darning needle, sew shut the opening and weave in the end.



## Stylet (mouth)

Insert hook through a stitch on the bottom side of the head. Ch 3, fasten off, and trim.

True bugs like aphids have piercing-sucking mouthparts. They attach themselves to a plant and suck out the juices. Since the juices have a lot of sugar but not much protein, aphids have to drink a LOT of it to get the protein they need. They excrete the excess sugar as a substance called honeydew, which is a very pretty name for a type of bug poop. This honeydew is super sugary, so other insects like ants will often drink it. Ants will even defend aphids from predators and carry them to new locations so they can continue to harvest the honeydew. Aphids are basically cows for ants!



## Antennae

All insects have one pair of antennae. They can be long, short, fuzzy, curly, straight, feathered, clubbed, or have all sorts of variations.

Using your hook or a darning needle, pull a long strand of yarn through the top of the head, leaving half of the strand on either side.



For each side, insert your hook near the base of the antennae, ch 15, fasten off, and trim.



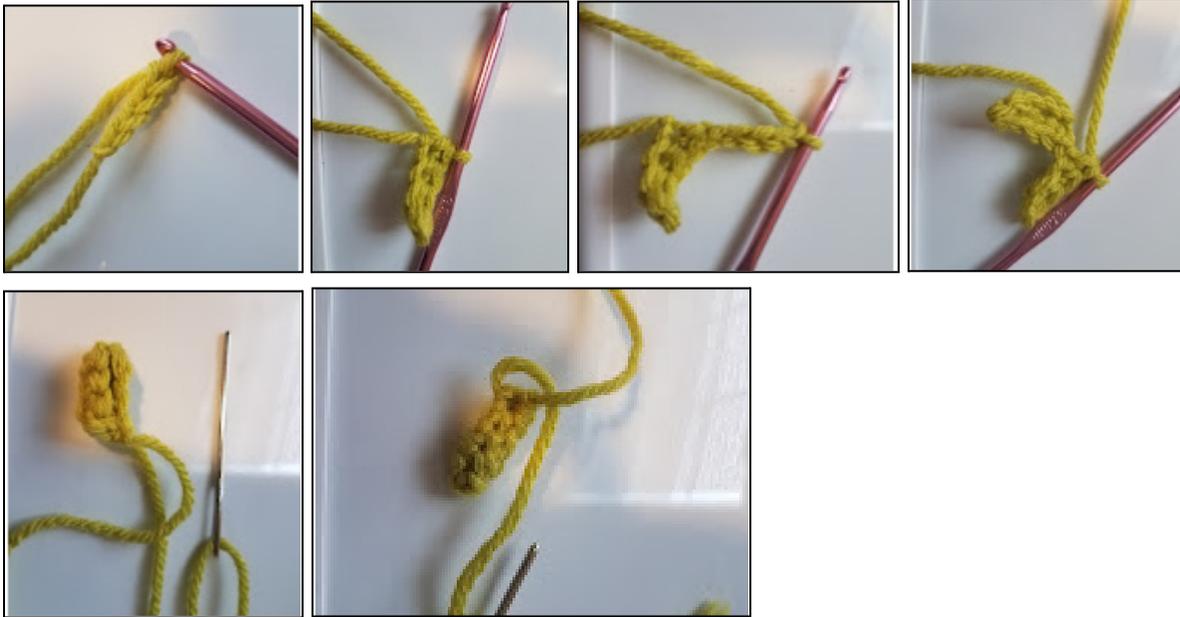
## Cornicles (make 2)

Aphids have a pair of projections on their abdomens called cornicles. Many people mistakenly think that cornicles produce the honeydew, but they actually secrete rubbery defensive compounds or pheromones to communicate with other aphids.

1. Ch 5.
2. Turn, skip 1 st, sc 4.
3. Ch 5.
4. Turn, skip 1 st, sc 4.

Fasten off with a long tail. Fold in half and sew the edges together.

Sew the cornicles onto the rear end of the aphid. They should point slightly upwards.



## Imago

"Imago" is just a fancy way to say adult.

Sometimes, adult aphids have wings. If an aphid needs her offspring to be able to fly, she'll produce offspring that will grow wings. She'll do this if the host plant gets too crowded or if her babies need to disperse. Due to the telescoping generations, she can affect not only her daughter's wing-growing capabilities but also her granddaughter's.

The aphids will only have wings after their final molts. Insects only have wings as adults, with a couple weird exceptions.

## Body

Mc of 6 st.



1. Inc x6
2. (sc, inc) around



3. (sc, sc, inc) around
4. Sc around
5. Sc around
6. Sc around
7. (dec, sc, sc) around.



8. BLO: (inc, sc) around. Using the back loops is optional but makes a ridge between the head and thorax.



9. Sc around. Flip inside out, add safety eyes



10. Sc around.

11. BLO: (inc, sc) around. This ridge separates thorax from abdomen.



12-21 (10 rounds): Sc around



22. (sc, dec) around

23. Sc around

24. (sc 8, dec) around. Fasten off.



## Inner pocket

Mc of 6 st.

1. Inc x6
2. (sc, inc) around
3. Sc around



4. Sc around

5. (sc, inc) around.

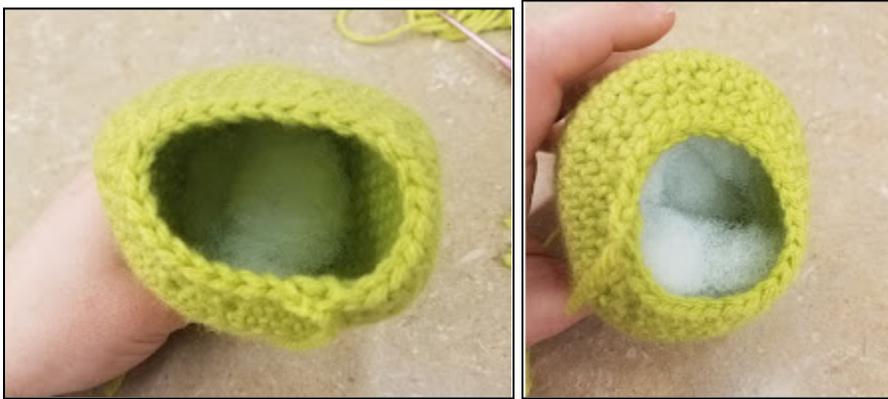
Sc until the baby aphid can fit fully inside (about 13 rounds)



When reproducing parthenogenetically, the offspring are all clones of their mother.

## Attaching pocket

Stuff the adult aphid's head and lightly stuff the sides of the body.



Insert the pocket, tucking loose ends in between the layers.



With aphid facing upright and away from you, insert your hook through the leftmost stitches of both layers. Pull through a loop.



Sc together the pocket and aphid until reaching the other side (16 st)



Ch 1, turn, sc 16.



Ch 1, turn, sc, dec, sc 10, dec, sc  
Ch 1, turn, sc, dec, sc 8, dec, sc  
Ch 1, turn, sc, dec, sc 6, dec, sc. Fasten off.



Weave in ends.



Place hook through both layers at the edge of the unsewn side.



Sc the layers together (12 st).



Ch 1, turn, sc, dec, sc, dec, sc, dec.

Ch 1, turn, sc, dec, sc, sc, dec, sc.

Ch 1, turn, sc 6.

Ch 1, turn, sc, dec, dec, sc.

Ch 1, turn, sc 4.

Ch 1, turn, sc 4.

Ch 1, turn, dec, dec.

Ch 1, turn, sc 2.

Fasten off. Weave in ends.



Aphids give live birth when reproducing parthenogenetically, but will lay eggs if reproducing sexually. Aphid life cycles can be really complicated, and it's different for different species.

### Stylet (mouth)

Insert hook through a stitch on the bottom side of the head. Ch 3, fasten off, and trim.



## Antennae:

Pull two long strands of yarn through the top of the aphid's head.



Poke hook through head and chain 25. Fasten off and trim. Repeat with other end of the yarn.



## Cornicles (make 2)

1. Ch 9.
2. Turn, skip 1 st, sc 8.
3. Ch 9.
4. Turn, skip 1 st, sc 8.

Fasten off with a long tail. Fold in half and sew the edges together.

Sew the cornicles onto the rear end of the aphid. They should point slightly upwards.



## Legs: Yarn-wrapped wire option.

Poke a length of craft wire through one side of the thorax, catching a couple stitches in between.



Bend the wire to secure its position.



Repeat 3 times. All legs should come from the thorax.



Twist the wires together at the base to keep them from wobbling. Hold the end of your yarn against the aphid with your thumb.



Wrap the yarn around the leg all the way to the end.



Bend the end of the wire (the foot) to catch the yarn and keep it from falling off.



Wrap the yarn back to the base of the leg.



Using the same yarn, move onto the next leg and repeat the process. Do this for all 3 legs on this side.



Weave in ends, trying to cover as much exposed wire on the body as you do so.

Repeat the process for the other side and bend the legs into place.



## Legs: pipe cleaner option

Poke a pipe cleaner through the thorax. For the nymph, use half a pipe cleaner.



Bend in half and twist the halves together. Bend the end to keep it from unraveling.



Repeat for three legs on each side. Bend into shape.



## Aphid nymph - Text only

### Body

Mc of 6 st.

1. (sc, inc) around
2. (sc, sc, inc)
3. Sc around
4. (Sc, sc, dec) around. Flip the piece inside out. Add two safety eyes.
5. BLO: (inc, sc) around. Using the back loop is optional but adds a ridge to separate the head from thorax.
6. Sc around. Stuff with filling.
7. BLO: (inc, sc) around. This ridge separates the thorax from the abdomen.
- 8-12 (5 rounds): sc around.
13. (sc, sc, dec) around.
14. (sc, dec) round. Stuff with filling.
15. (dec, sc) around.
16. (dec, sc) around.
17. Sc around. Cut the yarn and fasten off. Using a darning needle, sew shut the opening and weave in the end.

### Stylet (mouth)

Insert hook through a stitch on the bottom side of the head. Ch 3, fasten off, and trim.

### Antennae

Using your hook or a darning needle, pull a long strand of yarn through the top of the head, leaving half of the strand on either side. For each side, insert your hook near the base of the antennae, ch 15, fasten off, and trim.

### Cornicles (make 2)

1. Ch 5.
2. Turn, skip 1 st, sc 4.
3. Ch 5.
4. Turn, skip 1 st, sc 4.

Fasten off with a long tail. Fold in half and sew the edges together.

Sew the cornicles onto the rear end of the aphid. They should point slightly upwards.

## Imago - Text only

### Body

Mc of 6 st.

1. Inc x6
2. (sc, inc) around
3. (sc, sc, inc) around
4. Sc around
5. Sc around
6. Sc around
7. (dec, sc, sc) around.
8. BLO: (inc, sc) around. Using the back loops is optional but makes a ridge between the head and thorax.
9. Sc around
10. Sc around.
11. BLO: (inc, sc) around. This ridge separates thorax from abdomen.
- 12-21 (10 rounds): Sc around
22. (sc, dec) around
23. Sc around
24. (sc 8, dec) around. Fasten off.

### Inner pocket

Mc of 6 st.

1. Inc x6
  2. (sc, inc) around
  3. Sc around
  4. Sc around
  5. (sc, inc) around.
- Sc until the baby aphid can fit fully inside (about 13 rounds)

### Attaching pocket

Stuff the adult aphid's head and lightly stuff the sides of the body.

Insert the pocket, tucking loose ends in between the layers.

With aphid facing upright and away from you, insert your hook through the leftmost stitches of both layers. Pull through a loop.

Sc together the pocket and aphid until reaching the other side (16 st)

Ch 1, turn, sc 16.

Ch 1, turn, sc, dec, sc 10, dec, sc

Ch 1, turn, sc, dec, sc 8, dec, sc

Ch 1, turn, sc, dec, sc 6, dec, sc. Fasten off.

Weave in ends.

Place hook through both layers at the edge of the unsewn side. Sc the layers together (12 st).

Ch 1, turn, sc, dec, sc, dec, sc, dec.

Ch 1, turn, sc, dec, sc, sc, dec, sc.

Ch 1, turn, sc 6.

Ch 1, turn, sc, dec, dec, sc.

Ch 1, turn, sc 4.

Ch 1, turn, sc 4.

Ch 1, turn, dec, dec.

Ch 1, turn, sc 2.

Fasten off. Weave in ends.

Stylet (mouth)

Insert hook through a stitch on the bottom side of the head. Ch 3, fasten off, and trim.

Antennae:

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