# Appendix

# Bug words Printable templates

- Name cards
- Bug journal cover
- Certificate

#### **Abdomen**

The section of an insect's body where food is digested, eggs are made, and breathing holes (spiracles) are located.

# **Adaptation**

A characteristic or skill a plant or animal has that helps them survive.

# **Adult**

The last stage of an insect's life cycle, where the insect is a fully grown creature capable of reproduction.

#### **Antennae**

Sense organs, also called "feelers," located on an insect's head that help it touch, smell, and sometimes taste.

# **Apex predator**

The top predator in a food chain.

# **Arthropods**

Invertebrates, or animals that lack a backbone, and have jointed legs and hardened outer shells or exoskeletons.

#### **Bacteria**

A tiny, single-celled organism that gets nutrients from their environment.

# **Biomimicry**

Innovation that copies, mimics, or is inspired by nature.

# **Carnivore**

An animal that eats other animals.

# **Chrysalis**

A wrapper surrounding butterfly pupae

# Classification

Systematic process of sorting organisms, both living and extinct, into groups based on similar characteristics or evolutionary history.

#### Cocoon

Wrappers surrounding the pupae that can apply to certain moths and other insect pupae including but not limited to bees, wasps, fleas, caddisflies, etc.

# **Decomposition**

The process where organisms begin to break down after they are dead.

## **Detritivore**

An organism that eats dead or decaying plants or animals or their waste.

#### **Drone**

A male honeybee whose job it is to mate with gueen bees from other hives.

# **Ecosystem**

A community of living things in a shared environment.

# Egg

The first stage of an insect's life cycle.

# **Entomologist**

A scientist who studies insects.

# **Exoskeleton**

The hard outer covering that houses and supports internal organs, muscles and other tissues and protects an insect's body.

# **Famine**

When large numbers of people can't get enough food to eat over a long period of time.

### **Food chain**

A series of living things that are linked to each other because each thing feeds on the one next to it in the series.

#### **Food web**

The interlocking food chains within a community.

# **Fungus (Fungi, plural)**

A simple organism that is neither a plant nor an animal. Some examples of fungi are mushrooms, mold, mildew, and yeast.

#### **Habitat**

A place where plants and animals live.

### Head

The front part of an insect's body, where the eyes and antennae are located.

#### **Herbivore**

An organism that eats mostly (or only) plants.

#### Hive

The home a group of bees builds for themselves and their queen bee.

#### **Idiom**

A phrase that means something different from the actual words.

#### **Invertebrate**

Animals without a backbone or bony skeleton.

#### Larva

The second stage of an insect's 4-stage life cycle where it is an immature, or young, form of an insect that often looks like a worm. Its job is to eat and grow.

# Life cycle

A series of changes that happens to all living things.

# Metamorphosis

A big change in an animal's body during its life cycle. The change can be so dramatic that the adult looks very different from the baby, like a caterpillar and a butterfly. Some insects experience complete metamorphosis with 4 stages. Incomplete metamorphosis has three stages including a nymph that looks like a smaller version of the adult.

## **Nutrient**

Something in a food that is needed for growth or health. Minerals are nutrients that plants need to grow.

# Nymph

The second stage of an insect's 3-stage life cycle, where the young insect hatches from an egg and is similar to an adult, but smaller, and without wings.

#### **Omnivore**

An animal that eats both plants and other animals.

# Organism

Any living thing.

#### Parts of a flower

- **Anther:** the part of a flower that produces pollen grains.
- **Filament:** the long strand that supports the anthers.
- Ovary: the part at the bottom of the pistil where the eggs are produced. When the ovary is mature, it is a fruit like an apple.
- Petal: the outer parts of a flower that often have bright colors.
- **Pistil:** the part of the flower that makes ovules, or eggs. It has a long stalk, or **style**, under the stigma, and an ovary at the bottom. When the egg is mature, it is a seed.
- **Sepal:** the outer parts of a flower that cover a bud.
- **Stamen:** the part of the flower that makes and holds the pollen.
- **Stigma:** the sticky top of the pistil, where pollen grains end up.

# **Pesticides**

Chemicals used to kill insects.

# **Photosynthesis**

The process by which plants make food with energy from the sun.

# **Plague**

A serious disease that is spread by flea bites.

#### **Pollen**

A fine powder made by some plants needed for reproduction.

# **Poverty**

When people do not have enough money for basic needs like food, clothing, or shelter.

# **Primary producer**

A plant that makes, or produces, energy from sunlight. The first level of the food chain.

## **Primary consumer**

The organism that eats a plant in a food chain.

# **Pupa**

The third stage of an insect's 4-stage life cycle where it develops its adult body and loses features of a larva.

# Reproduction

How an organism makes more of itself.

# **Scopa**

Parts of a bee that have evolved to carry pollen. This includes long hair on their back legs or on the underside of their abdomen. Honeybees have developed special scopa called pollen baskets on their hind legs.

### **Secondary consumer**

The organism that eats a primary consumer.

# **Sleeping sickness**

A serious disease that is spread by tsetse fly bites.

# **Static electricity**

The buildup of the electrical charge in an object when it is rubbed against another object. It can make things stick to or repel each other.

# **Taxonomy**

The science of naming and classifying organisms into a system that indicates natural relationships.

# **Thorax**

The middle section of an insect's body, where the legs are attached.

# **Trophic levels**

The levels — or steps — in a food chain or food web. The trophic level of an organism is the position it occupies in a food chain or food web.

# Waggle dance

The figure-eight-shaped dance honeybees do to tell other honeybees the direction and distance of a flower patch.

# **Bug Buddies Name Cards**

Make copies of these name tags and let child each choose their own Bug Buddies name. They can choose a particular insect name, such as Ant, Butterfly, Cricket, Dragonfly, Grasshopper, Ladybug — or choose a new vocabulary word such as Anther, Chrysalis, Detrivore, or Thorax.

My Bug Buddies name is:	My Bug Buddies name is:
My Bug Buddies name is:	My Bug Buddies name is:

Your name here

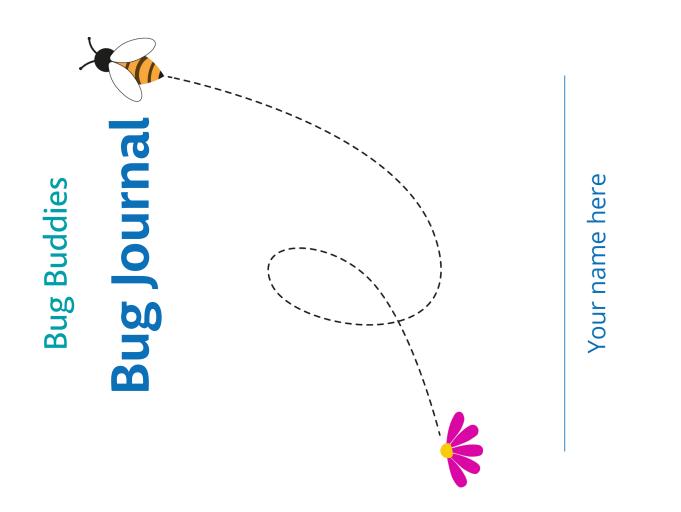
# Bug Buddies Bug Journal

Fold cover along dotted lines

Your name here

# Bug Buddies Bug Journal

Fold cover along dotted lines



Fold cover along dotted lines





This certificate is presented to:

To celebrate your participation in the Bug Buddies program!

Signature



Date