

Mystery Bug Challenge

Group Members _____

Use your GPS unit to navigate your way around the schoolyard to find clues to help you identify each mystery bug. You will need to get all four clues for each bug before you give your answer to the teacher.

NOTE: Do not take the clues with you! Put them back in the film canister and leave them EXACTLY where you found them!

Mystery Bug #1	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #2	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #3	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #4	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #5	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #6	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #7	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Mystery Bug #8	Start at _____
Clue 1:	_____
Clue 2:	_____
Clue 3:	_____
Clue 4:	_____
The mystery bug is a _____.	

Starting Cards – One per round

Since most of my classes have enough students for 6 groups, I made up 8 rounds to ensure that I had two extra. I have each group draw a card to start their first quest. Once they are done and all answers are correct, the team turns in that card and draws another one.

Mystery Bug #1

To start your quest, find the waypoint that equals three times the number of legs on an insect.

Mystery Bug #2

To start your quest, find the waypoint that equals four times the number of legs on an insect.

Mystery Bug #3

To start your quest, find the waypoint that equals three times the number of letters in the word INSECTS.

Mystery Bug #4

To start your quest, find the waypoint that equals the number of letters in the name of the order that includes flies and mosquitoes.

Mystery Bug #5

To find your first waypoint, add one to the number of letters in the order that includes beetles.

Mystery Bug #6

To start your quest, find the waypoint that equals the number of wings on a mosquito or fly.

Mystery Bug #7

To start your quest, find the waypoint that equals the number of pairs of legs that are found on an arachnid.

Mystery Bug #8

To start your quest, find the waypoint that equals the number of letters in the name of the order that includes praying mantids.

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Clues

Each round consists of 4 clues. Students must find all 4 clues before they can have their answers checked. You will want to print two copies of the clues – one copy to use as an answer key and the others to hide for the challenge.

Directions: Cut apart each set of clues and place inside a film canister or other small container. Use a permanent marker to label the top of each canister with the round number and clue number, i.e. 1-1 or 4-3.

NOTE: Some canisters can be hidden as they are, while you may want to modify the others to allow you to hide them in different areas. For example, I tape clothespins to some to allow me to clip them to a branch or use a paper clip to poke a hole in the top and make a hanger for hanging in a tree or bush. You could also use sticky magnets to attach them to a metal pole or sign.

Bug #1: Dragonfly – Start at 018

#1 - 1: I am an arthropod.

Next Clue: 20

#1 - 2: I have four wings.

Next Clue: 009

#1 - 3: I belong to the order Odonata.

Next Clue: 026

#1 - 4: I lay my wings flat when I land on something

Do you know which bug I am?

Bug #2: Fly – Start at 024

#1 - 1: I have two wings.

Next Clue: 014

#1 - 2: I belong to the order Diptera.

Next Clue: 032

#1 - 3: My larval stage is called a maggot.

Next Clue: 003

#1 - 4: I might be found in your “house”.

Do you know which bug I am?

Bug #3: Dung Beetle – Start at 021

#3 - 1: I am important bug in the environment.

Next Clue: 012

#3 - 2: I was held in high regard in Egypt.

Next Clue: 029

#3 - 3: I belong to the order of insects known as Coleoptera.

Next Clue: 017

#3 - 4: I like to roll dung into balls.

Do you know which bug I am?

Bug #4: Mosquito – Start at 007

#1 - 1: I have two wings.

Next Clue: 013

#1 - 2: I belong to the order Diptera.

Next Clue: 025

#1 - 3: I can carry many diseases.

Next Clue: 010

#1 - 4: My larval stage is called a wiggler.

Do you know which bug I am?

Bug #5: Cicada – Start at 011

#1 - 1: Each different species in my family has a different song.

Next Clue: 019

#1 - 2: Many people find my shed exoskeletons instead of finding me.

Next Clue: 031

#1 - 3: I belong to the order Homoptera.

Next Clue: 006

#1 - 4: Many people call me a locust, but I'm not one!

Do you know which bug I am?

Bug #6: Garden Spider – Start at 002

#1 - 1: I am an arthropod.

Next Clue: 016

#1 - 2: I have eight legs.

Next Clue: 022

#1 - 3: I spin very large webs.

Next Clue: 030

#1 - 4: I might be found in your "garden".

Do you know which bug I am?

Bug #7: Praying Mantid – Start at 004

#3 - 1: I have six legs.

Next Clue: 015

#3 - 2: I am able to move my head around without moving my body.

Next Clue: 023

#3 - 3: I lay hundreds of eggs at one time in a case called an ootheca.

Next Clue: 028

#3 - 4: I am named for my "praying" front legs.

Do you know which bug I am?

Bug #8: Crane Fly – Start at 008

#1 - 1: I have six legs.

Next Clue: 005

#1 - 2: I belong to the order Diptera.

Next Clue: 027

#1 - 3: As an adult I eat nectar or may not eat at all.

Next Clue: 001

#1 - 4: I am often mistaken for a large mosquito.

Do you know which bug I am?

Schoolyard Map

This is the map I use to set up the Mystery Bug Challenge. I first drew the map using Microsoft Word to show the locations of trees, bushes, the garden, and other places I could hide the canisters. I also added text boxes on the map (color coded by round) to show where each canister was to be hidden.

After getting all the canisters ready, I went around the schoolyard with my GPS unit to set up 32 points and hide the canisters. I downloaded the points onto my computer and loaded them on each of the receivers the kids would use.

