

ID:

Butterfly Book

My Butterfly Field Guide

ID:

Butterfly Identifications



Monarch

Bigger than viceroys. Has a wingspan of 3 to 4 inches!



Red Admiral

Looks like mourning cloak with 4 orange stripes and no white edges.



Question Mark

Looks like monarch without all the black veins on its wings.

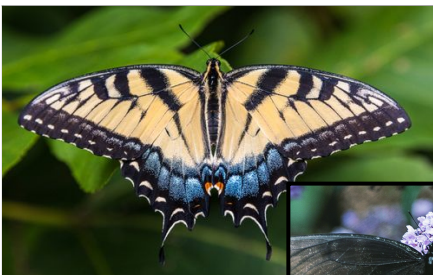


Viceroy

Looks like Monarch but has a line going along the bottom of its wings.

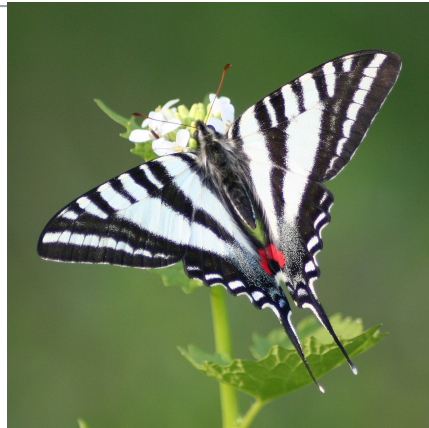
ID:

Butterfly Identifications



Eastern Tiger Swallowtail (female)

Big yellow (or black) butterflies. Females have a lot of blue on the bottom and males only have a little.



Zebra Swallowtail

Smaller than tiger swallowtails. Only found where pawpaw plants grow!



Black Swallowtail

Large black butterfly with row of yellow dots on wings. Wings create a half circle shape.



Pipevine Swallowtail

Black to blue butterfly with small white dots on edges of wings.

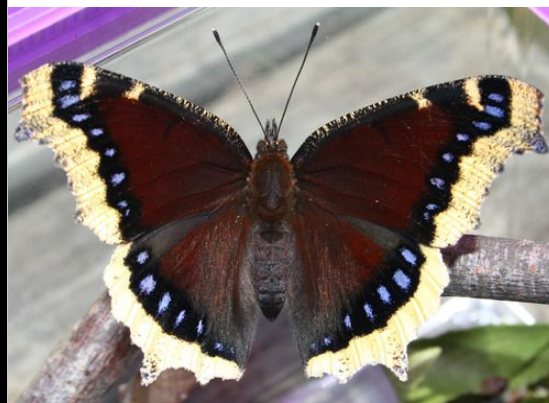
ID:

Butterfly Identifications



Red Spotted
Admiral

Looks like the black female tiger swallowtail without yellow dots on the bottom of wings.



Mourning Cloak

Is black with white edges. Also plays dead!



Spicebush
Swallowtail

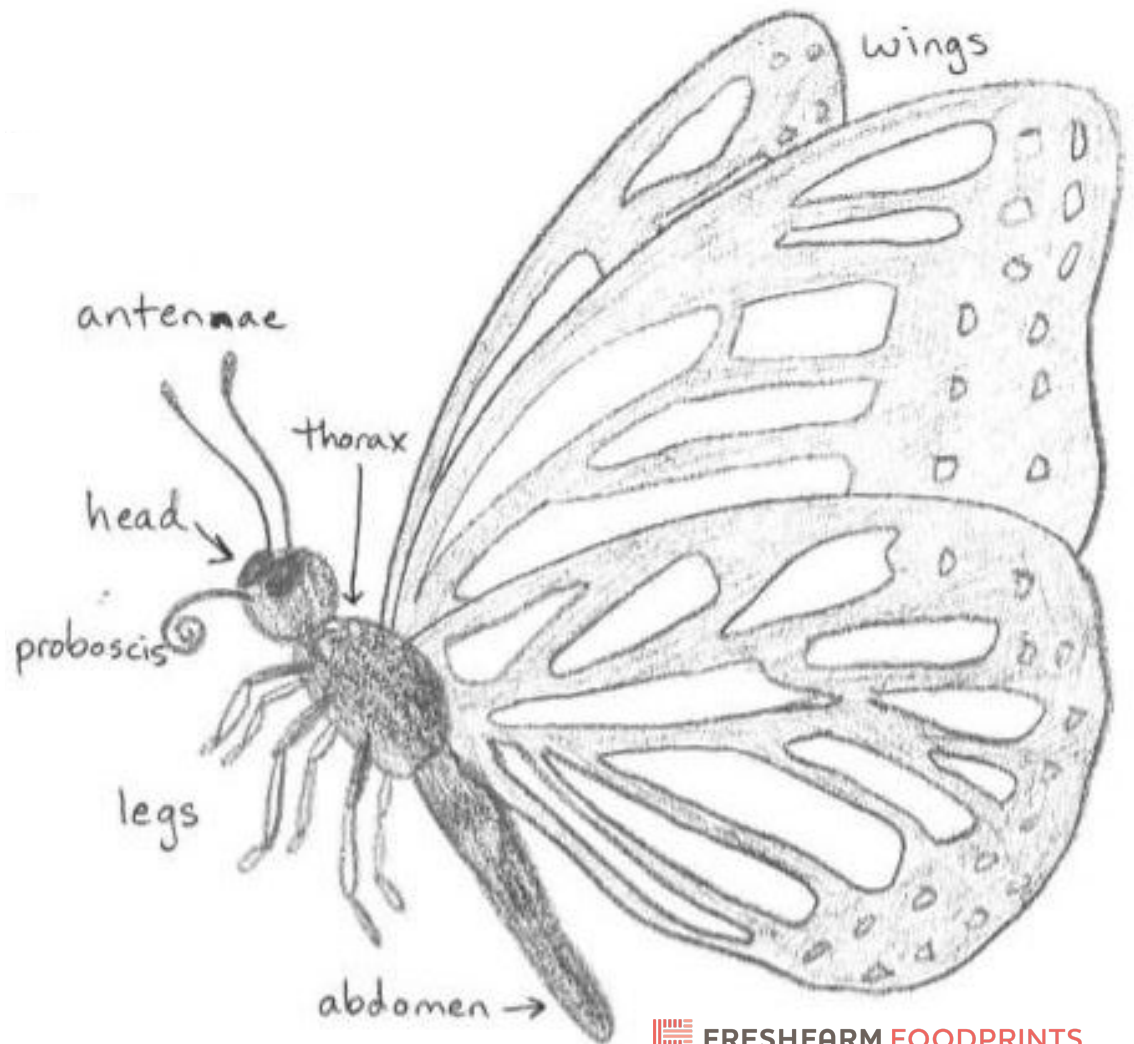
Black butterfly with one row of blue dots on the bottom of their wings.



Great Spangled
Fritillary

Yellow or orange with black leopard spots all over their wings.

Butterfly Body Parts



COLOR PREFERENCE CHART

Flower Colors

Butterfly



orange

red

pink

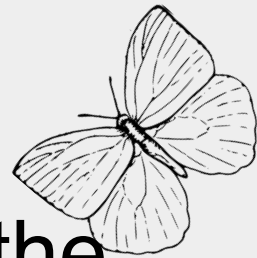
sweet
smell

2022 Butterfly Project Questions

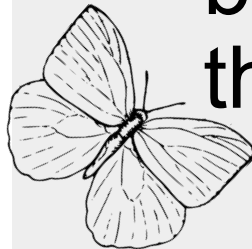
ID:

W1

- Do you think there will be butterflies in the school garden?



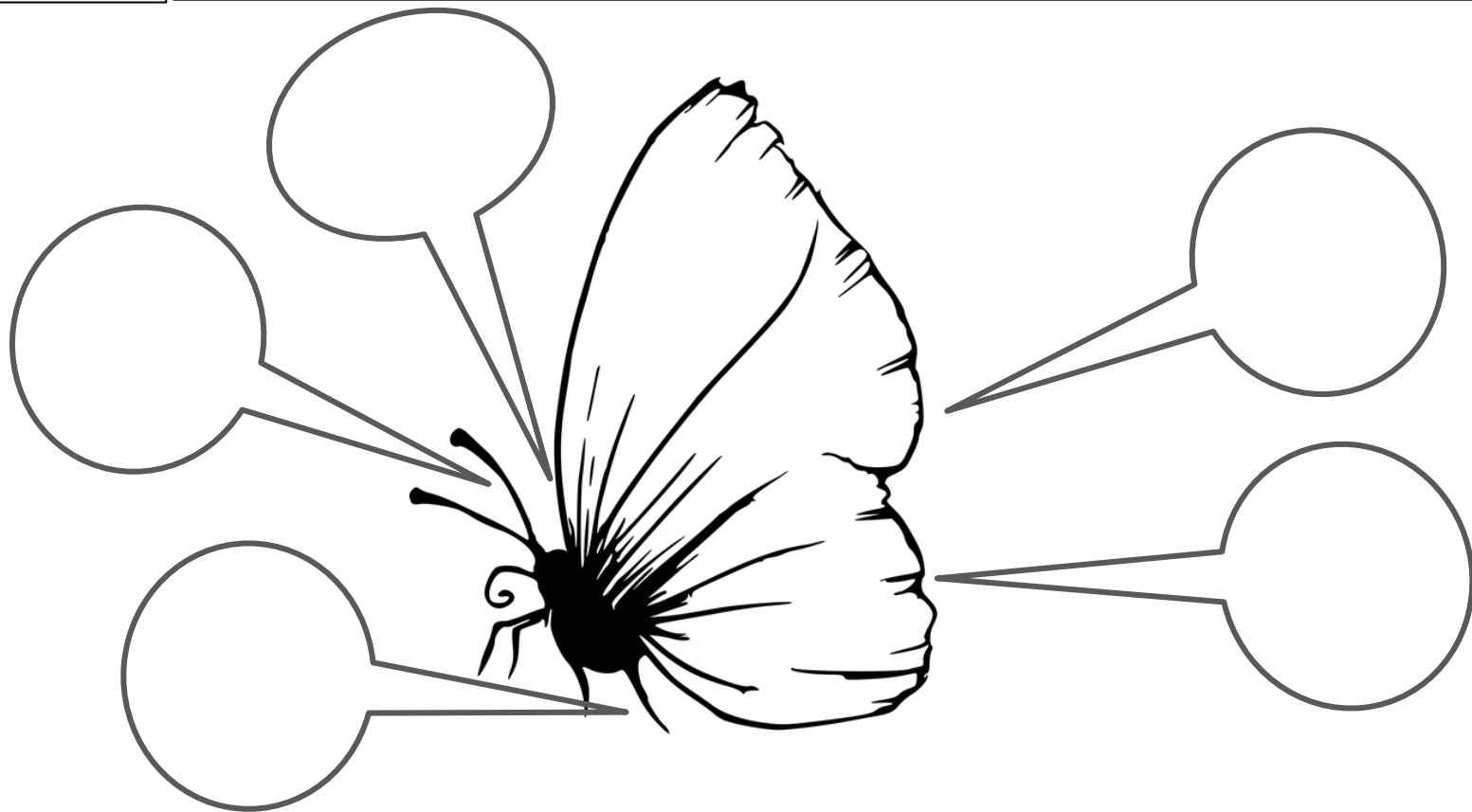
- How many butterflies do you think you'll see?



ID:

Where do you think you we will hold butterflies?

W1



ID:

Where do you want to see more trees?

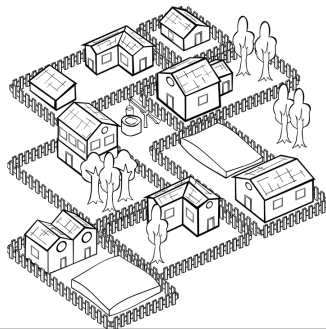


W2

My school garden



My neighborhood



My city



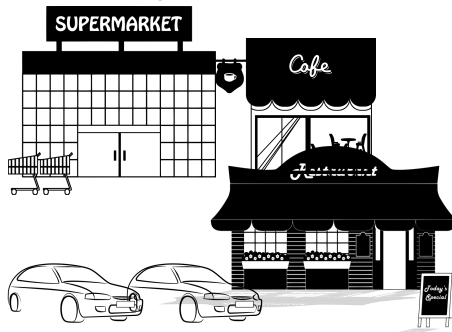
Forest park



Highways



Shopping areas



Playgrounds



(Write your own!)





ID:

Where do you want to see more trees?



W2

Date:		Temperature:	
Time Start:		Time End:	

WEEK 2

Butterfly Behavior	Plant	Butterfly Species	Mark Code	Recapture	Male or Female	Age
Examples: walking flapping wings flying drinking nectar	flower veggie other	Monarch Viceroy Red Admiral Red-Spotted Admiral Question Mark Mourning Cloak Great Spangled Fritillary Tiger Swallowtail Black Swallowtail Zebra Swallowtail Spicebush Swallowtail Pipevine Swallowtail	(Codes range from 001-999 - researcher will tell you what to write)	yes no	M F	young middle old

[illegible]

ID:

Where do you want to see more butterflies?

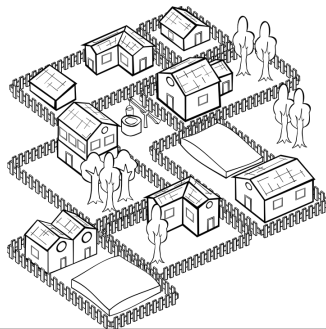


W3

My school garden



My neighborhood



My city



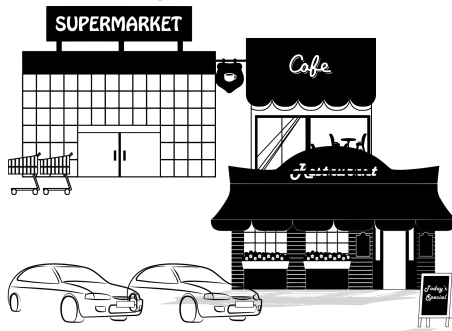
Forest park



Highways



Shopping areas



Playgrounds



(Write your own!)





ID:

Where do you want to see more butterflies?



W3

Date:		Temperature:	
Time Start:		Time End:	

WEEK 3

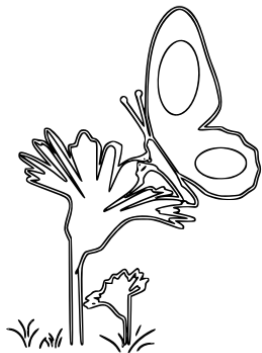
Butterfly Behavior	Plant	Butterfly Species	Mark Code	Recapture	Male or Female	Age
Examples: walking flapping wings flying drinking nectar	flower veggie other	Monarch Viceroy Red Admiral Red-Spotted Admiral Question Mark Mourning Cloak Great Spangled Fritillary Tiger Swallowtail Black Swallowtail Zebra Swallowtail Spicebush Swallowtail Pipevine Swallowtail	(Codes range from 001-999 - researcher will tell you what to write)	yes no	M F	young middle old

[illegible]

ID:

Draw a butterfly you saw in the garden today.

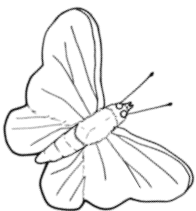
W4



ID:

Draw a butterfly you saw in the garden today.

W4



ID:

Draw where a butterfly would land in this garden.

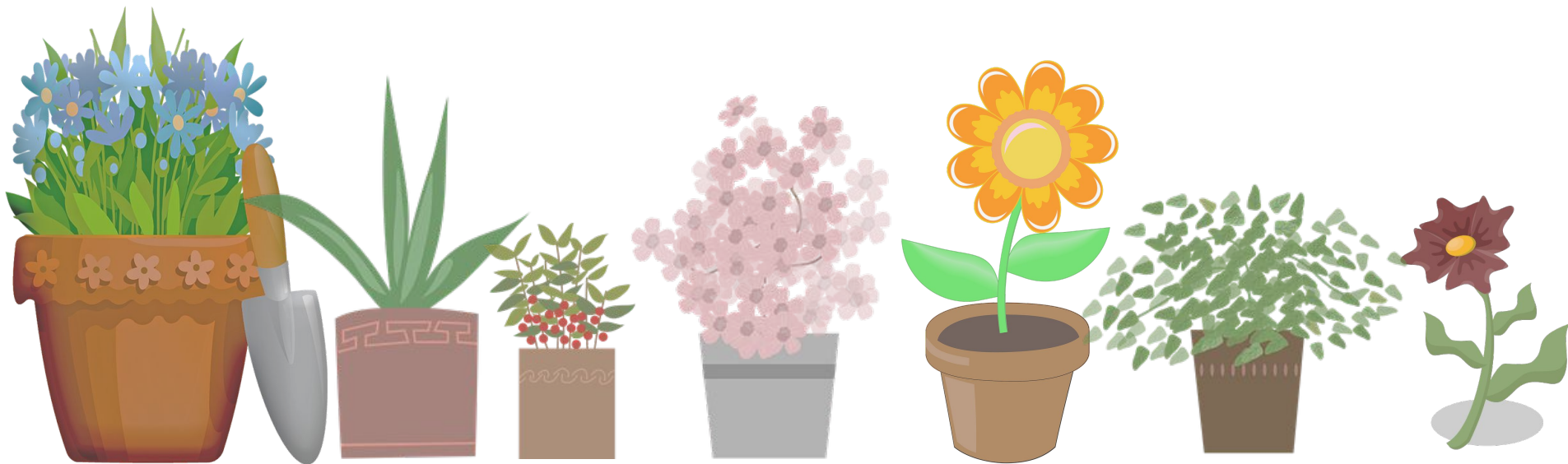
W4



ID:

Draw a butterfly on the plants they would like the most.

W4



Date:		Temperature:	
Time Start:		Time End:	

WEEK 4

Butterfly Behavior	Plant	Butterfly Species	Mark Code	Recapture	Male or Female	Age
Examples: walking flapping wings flying drinking nectar	flower veggie other	Monarch Viceroy Red Admiral Red-Spotted Admiral Question Mark Mourning Cloak Great Spangled Fritillary Tiger Swallowtail Black Swallowtail Zebra Swallowtail Spicebush Swallowtail Pipevine Swallowtail	(Codes range from 001-999 - researcher will tell you what to write)	yes no	M F	young middle old

[illegible]

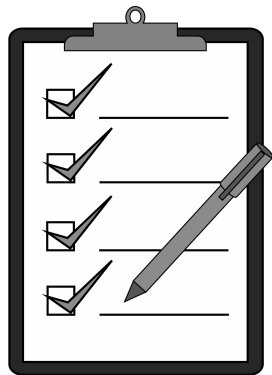
ID:

What order did you do these steps?

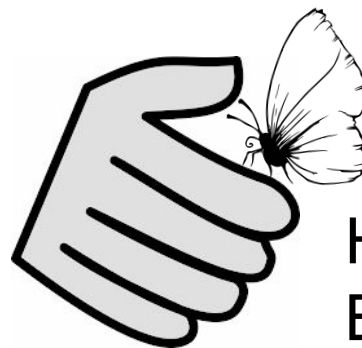
W5



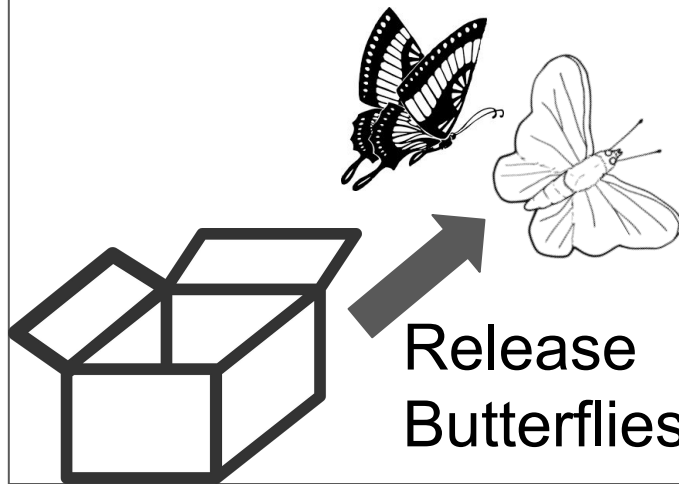
Catch
Butterfly



Write
Information



Hold
Butterfly



Release
Butterflies

ID:

W5

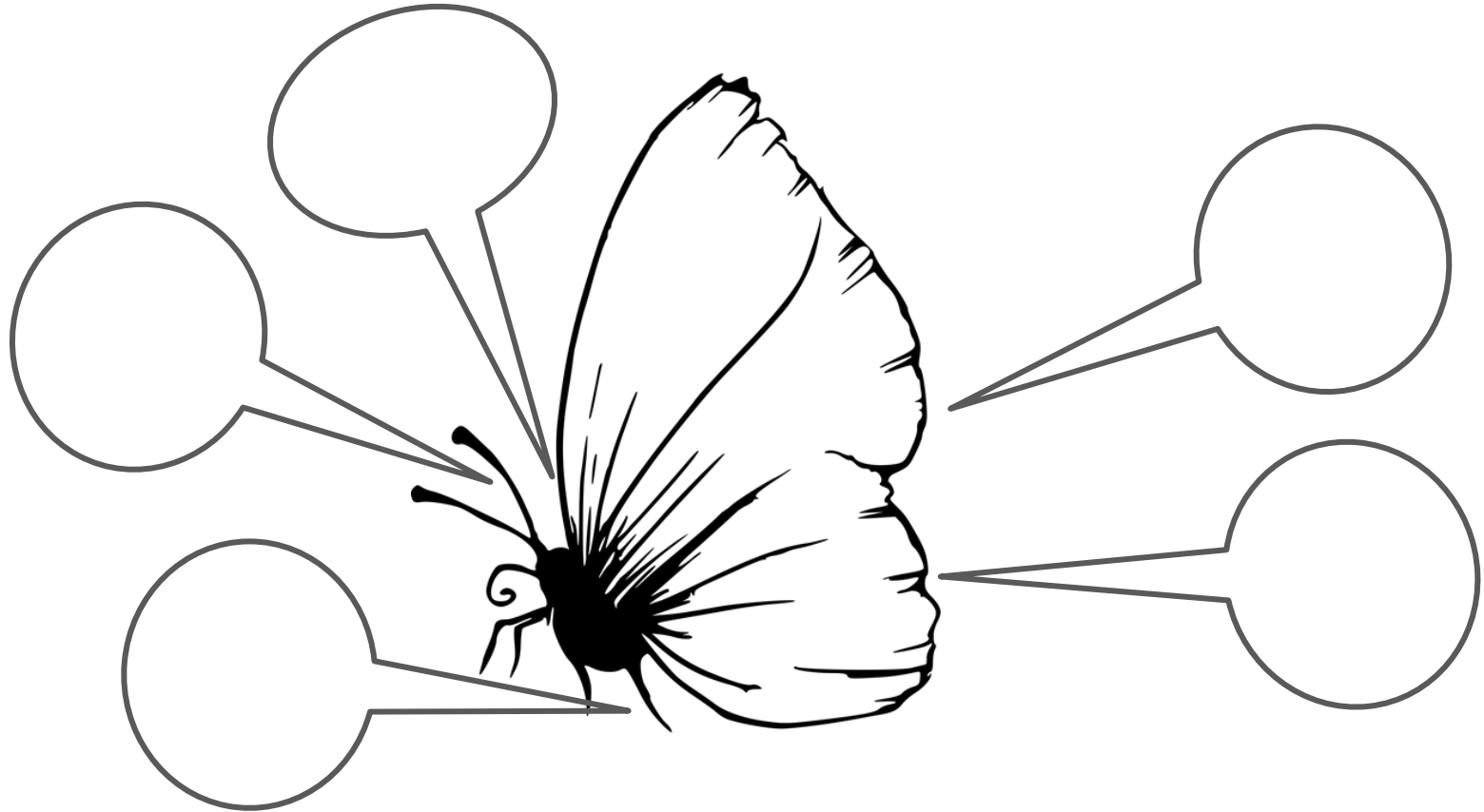
- How many butterflies did you think you saw in the garden?



ID:

How do you hold butterflies for research?

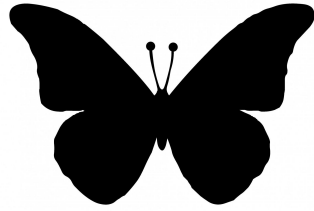
W5



Date:		Temperature:		WEEK 5		
Time Start:		Time End:				

Butterfly Behavior	Plant	Butterfly Species	Mark Code	Recapture	Male or Female	Age
Examples: walking flapping wings flying drinking nectar	flower veggie other	Monarch Viceroy Red Admiral Red-Spotted Admiral Question Mark Mourning Cloak Great Spangled Fritillary Tiger Swallowtail Black Swallowtail Zebra Swallowtail Spicebush Swallowtail Pipevine Swallowtail	(Codes range from 001-999 - researcher will tell you what to write)	yes no	M F	young middle old

[illegible]

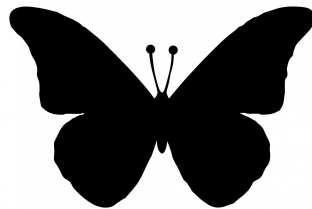


Extra Worksheet Pages

ID:

Butterfly Word Search 1!

1st



Word Bank

P U P A W

E F B H I

G Y A E N

G G E A G

L E G D H

EGG
HEAD
PUPA

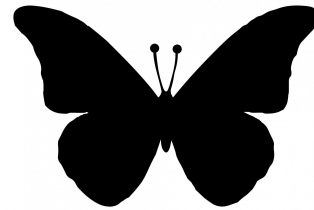
EYE
LEG
WING

ID:

Butterfly Word Search 2!

1st/3
rd

T	A	L	A	R	V	A	E	B
O	B	A	P	U	P	A	U	U
P	D	H	N	U	B	T	L	D
R	O	T	W	T	T	J	N	Q
O	M	F	H	E	E	E	N	B
L	E	D	R	O	C	N	X	B
E	N	F	C	T	R	L	N	I
G	L	T	A	A	P	A	E	A
Y	W	R	B	S	E	U	X	K



Word Bank

ABDOMEN

ANTENNA

BUTTERFLY

LARVAE

NECTAR

PROLEG

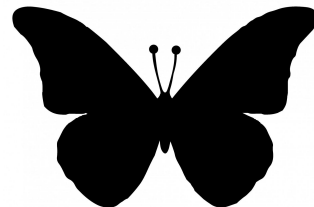
PUPA

THORAX

ID:

Butterfly Word Search 3!

3rd



L G I H T D D B E A Q G V M J
T A O J H A V U J Y N R G C R
C M R Q O E T T Z I E K H A S
I A E V R H K T W K E R L N K
U I T R A T C E N G Y N E N Q
S O O E X E F R G S Q R G E F
K I P F R Q N F A O P X A T D
A Q C H M P J L O R V B D N Q
M P M S W T I Y O N O I Q A L
I T U O O S E L C A R I P S I
D I B P G B E E L U T R U E C
F F F K Y G O M H A W K U T R
A B D O M E N R A F R T A U O
C W Y N E B M T P I N O H Q E
H J R F T J U W G X I Z V K J

Word Bank

ABDOMEN
ANTENNA
BUTTERFLY
CATERPILLAR

CHRYSLIS
EGG
EYE
HEAD

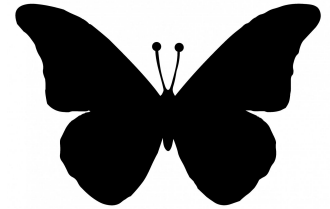
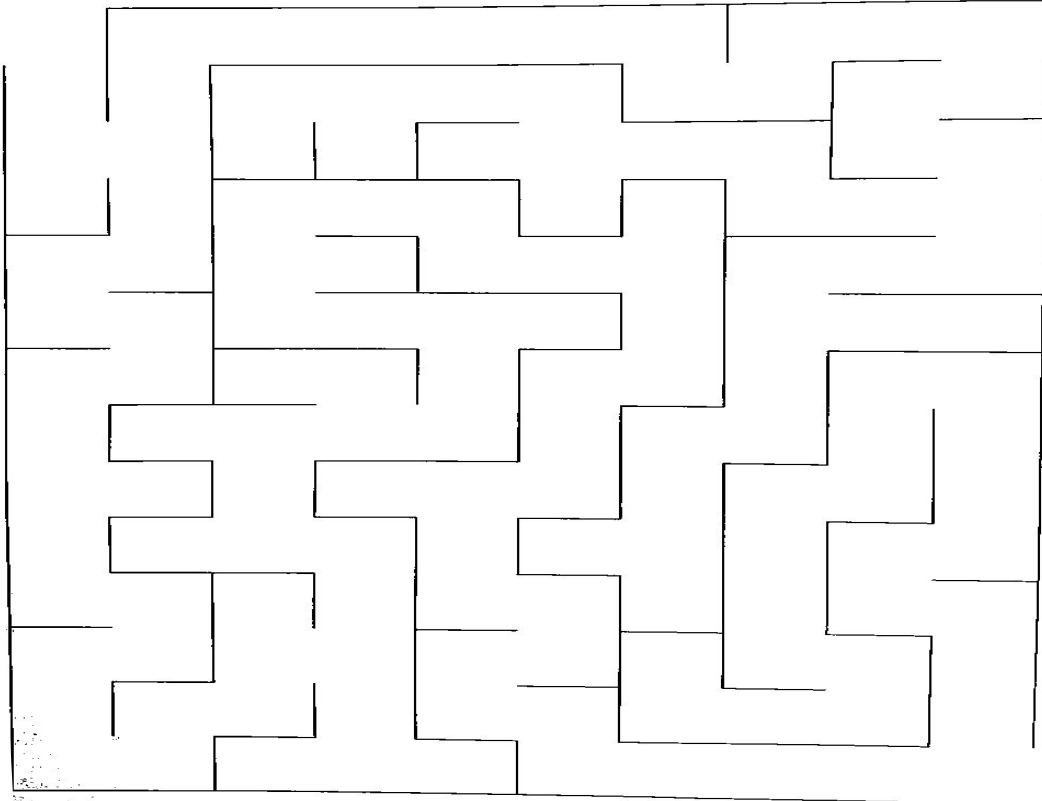
LARVAE
LEG
NECTAR
PROBOSCIS

SPIRACLES
THORAX
WING

ID:

Butterfly Maze!

1st/3
rd



Help the caterpillar get to the butterfly.

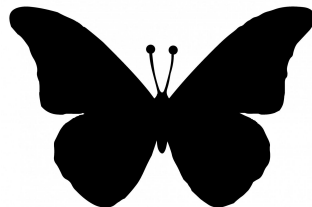
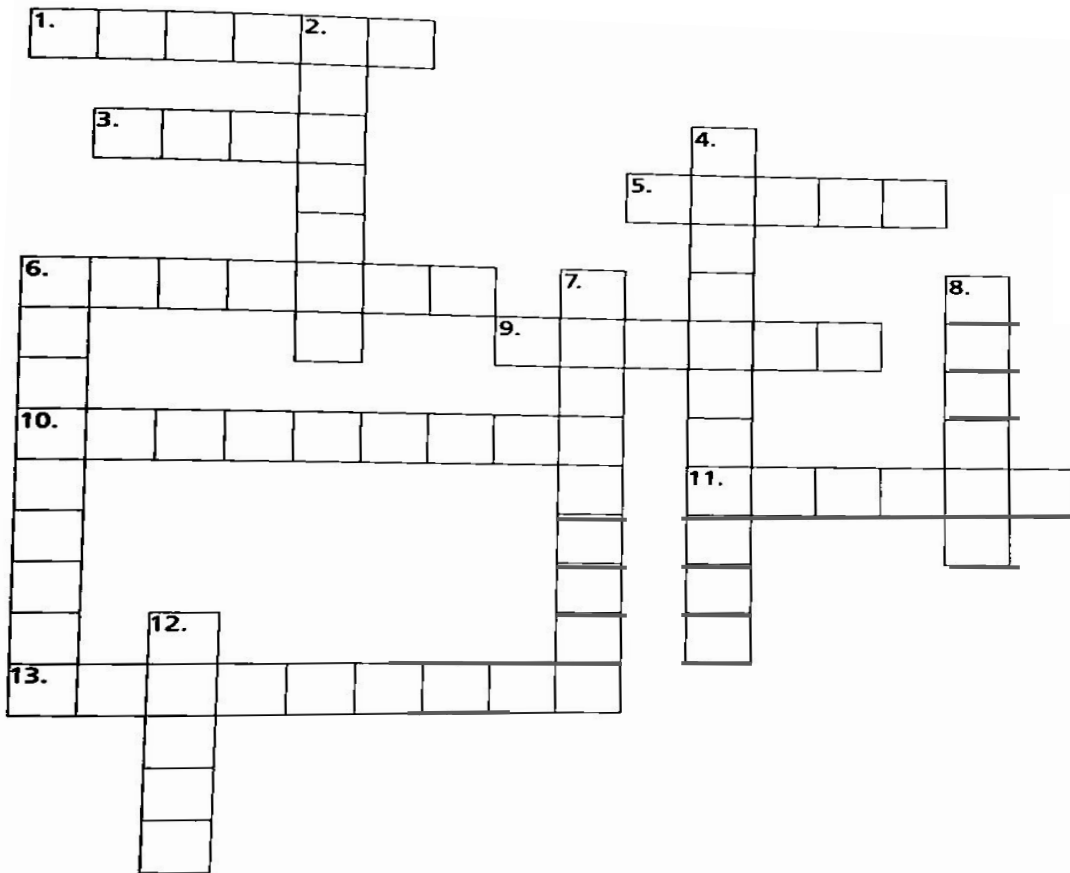


ID:

Butterfly Crossword Puzzle!

(use word search word banks)

3rd



Across

1. What butterflies eat
3. Where a butterfly's eyes are
5. Another name for caterpillar
6. The larvae has these but not the adult
9. A butterfly's middle body section
10. Adult stage of the life cycle
11. What a caterpillar likes to eat
13. Insects breathe through these

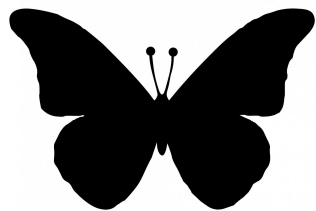
Down

2. The longest body section
4. The main feeding stage of the life cycle
6. A butterfly drinks nectar through this
7. The pupa of a butterfly
8. A source of nectar
12. Used for flight

ID:

Complete the Butterfly!

1st/3
rd



Activities Timeline

	Week 1	Week 2	Week 3	Week 4	Week 5
Butterfly book activity	W1 activities - (pre-tests)	W2 activities	W3 activities	W4 activities	W5 activities (post-tests)
Movement Questions			X		
Sticker Board					X
Debriefings		W2 questions	W3 questions	W4 questions	W5 questions

Organizer

Everyday:

- **(20-30 mins)** butterfly catching/data collecting (....)
- Info from butterfly books
- Debrief sessions - audio recording
- 'Field Notes' - note of behaviors and what happened at the end of each visit

Day 1:

- **(5 mins)** Intro
- **(5-10 mins)** hold your butterfly model
-
- **(5-10 mins) Q: debrief questions**
- **(5-10 mins) Butterfly book** - W2 pages

Day 2:

- **(2 mins)** review / holding butterfly
-
- **(5-10 mins) Q: Movement questions** - warm up to decouple & then actual questions
- **(5-10 mins) Q: debrief questions**
- **(5-10 mins) Butterfly Book** - W3 pages

Day 3:

- **(2 mins)** review / holding butterfly
-
- **(5-10 mins) Q: debrief questions**
- **(5-10 mins) Butterfly Book** - W4 pages

Day 4:

- **(2 mins)** review / holding butterfly
-
- **(5-10 min) Student Analysis:**
 - Bar graphs - bars made with butterfly images
 - Students make conclusions of graphs produced:
 - male/female (monarch / tiger swallowtail)
 - Ages (young, middle, old)
 - Behaviors (different types observed)
 - Show and ask what their conclusions would be in a group
- **(5-10 mins) Q: debrief questions**
- **(5-10 mins) Butterfly Book** - W5 pages

Debriefing Questions

Consistent Questions Each Week:

- What behaviors did you see the butterflies do today?
- What was your favorite part about today? Part you liked the least?
- Do you have any questions for me? (about butterflies, the project, being a scientist...)

W2

- Who held a butterfly? What was it like?

W3

- What other things did you see in the garden?

W4

- What color butterflies did you see today?
- What butterfly names did you learn? (go through some names)

W5

- What was your favorite part of the project?
- Do you want to be a researcher? (of anything, butterflies..)
- Would you want to do this program again?

Movement Questions (W3)

Decoupling/Warm up Questions:

Does your name start with the letter (A,M,L)?

- *yes/no*

Are you a rising 1st/3rd grader?

- *yes/no*

Are you wearing a green/white/other shirt?

- *yes/no*

Data Questions

Do you like to be outside?

- *yes/no*

Do you like to be in the garden?

- *yes/no*

Do you like bugs?

- *yes/no*

Do you like butterflies?

- *yes/no*

Do you think cities can be good places for butterflies to live?

- *yes/no*

Sticker Board: **What was your favorite part of the project?** (W5)

Instructions: **blue** stickers if they liked it, **red** if they didn't like it so much; students answer for each box

Learning about Urban Nature	Catching Butterflies	Holding Butterflies
Writing Information	Looking at Bugs	Being a Scientist

Reference: Number positions

(no bottom hindwing mark)
Marie Reed

100

Rock
Creek
Park

200

Watkins

300

Kingman
Island

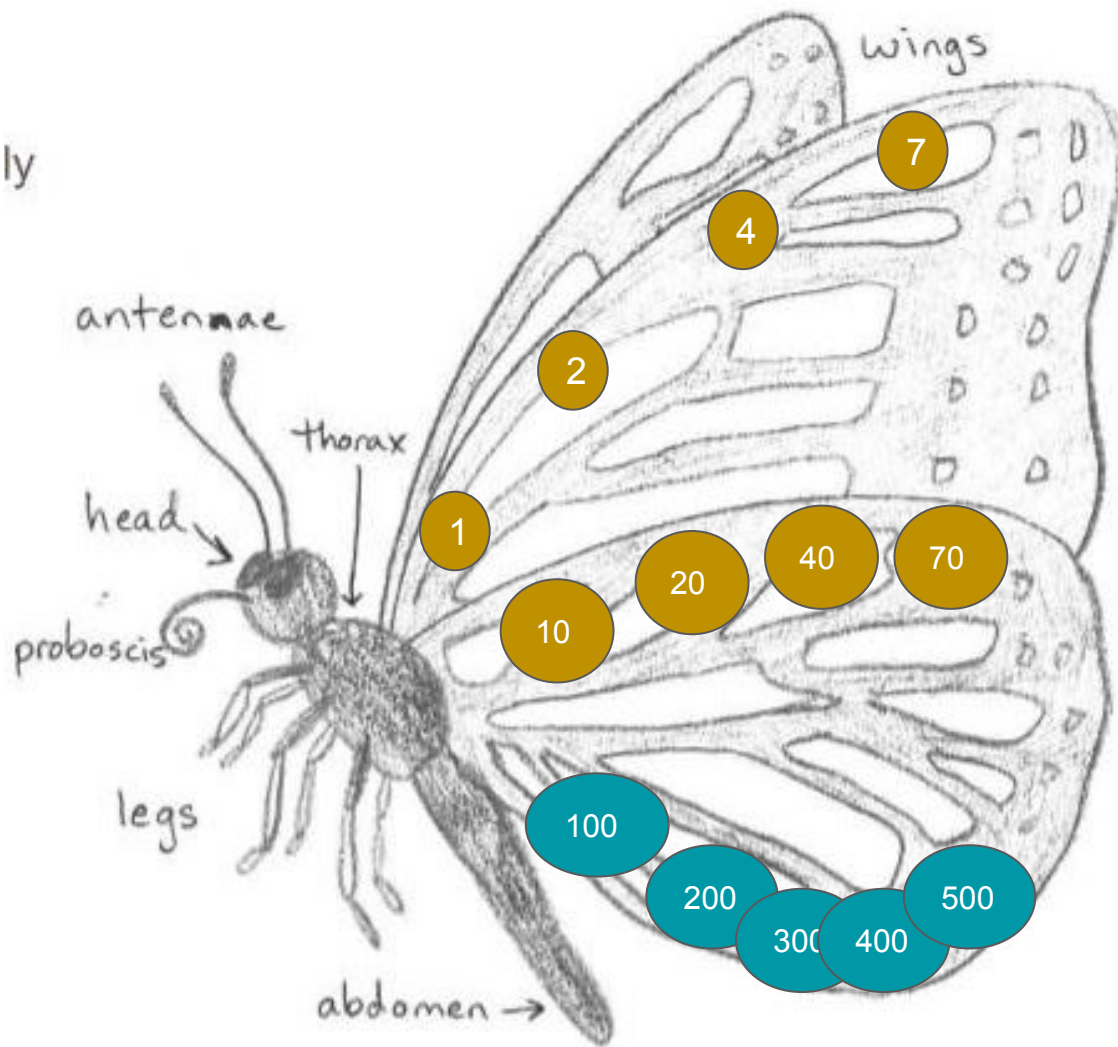
400

Garfield

500

Fort
Stanton
Park

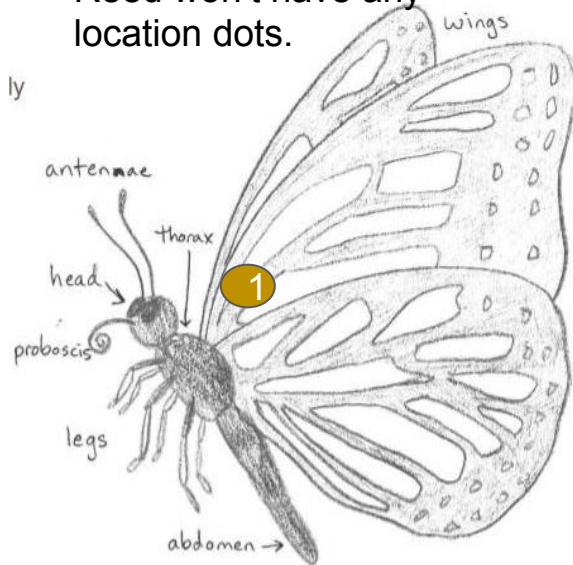
ly



Examples:

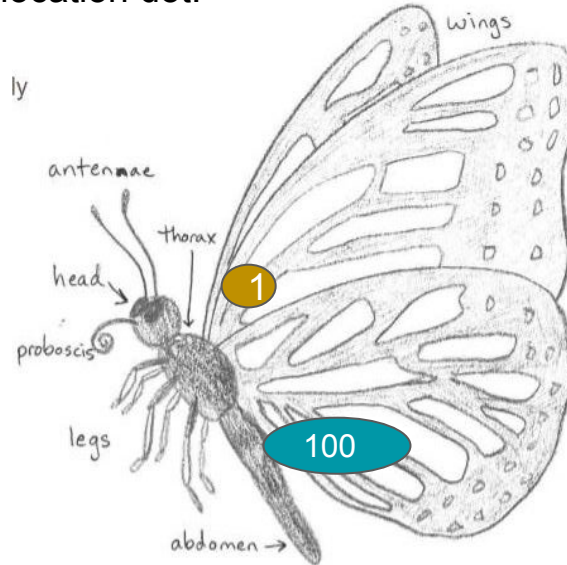
Marie Reed
Elementary:

ex) this is the first
butterfly you get, so its
code is 001. Marie
Reed won't have any
location dots.



Rock Creek park:

ex) this is the first
butterfly you get, so its
code is 101. Rock
Creek Park gets 1
location dot.



Watkins Elementary:

ex) this is the sixth
butterfly you get, so its
code is 206. Watkins
gets 2 location spots so
it's easier to clarify
location.

