There are many options, here are the most efficient

Teacher Key

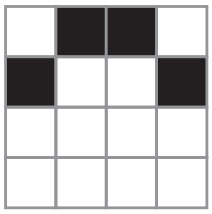

Image 1

→ ↯ → ↯ → ↓ ↯ ← ← ← ↯

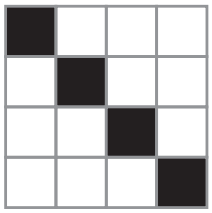

Image 2

↯ → ↓ ↯ → ↓ ↯ → ↓ ↯

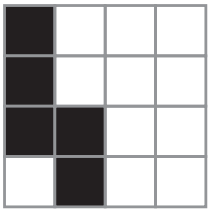

Image 3

↯ ↓ ↯ ↓ ↯ → ↯ ↓ ↯

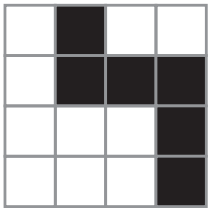

Image 4

→ ↯ ↓ ↯ → ↯ → ↯ ↓ ↯ ↓ ↯

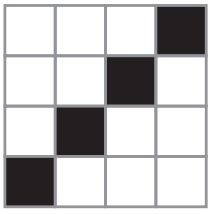

Image 5

→ → → ↯ ↓ ← ↯ ↓ ← ↯ ↓ ← ↯

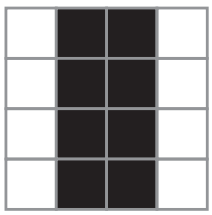

Image 6

→ ↯ → ↯ ↓ ↯ ← ↯ ↓ ↯ → ↯ ↓ ↯ ← ↯

Name: ______________ **Teacher Key**

U
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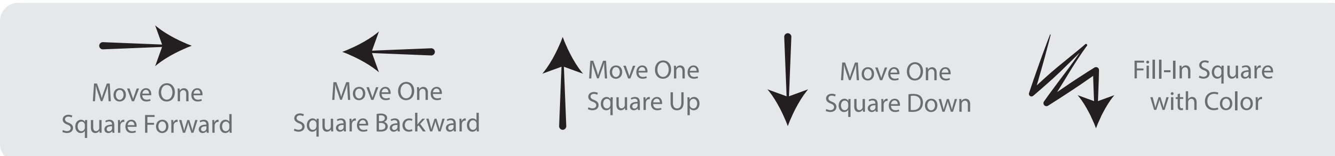
Graph Paper Programming

Assessment Worksheet

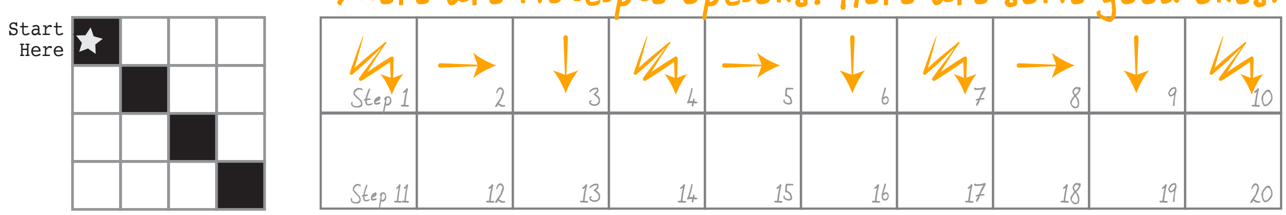
C O D E

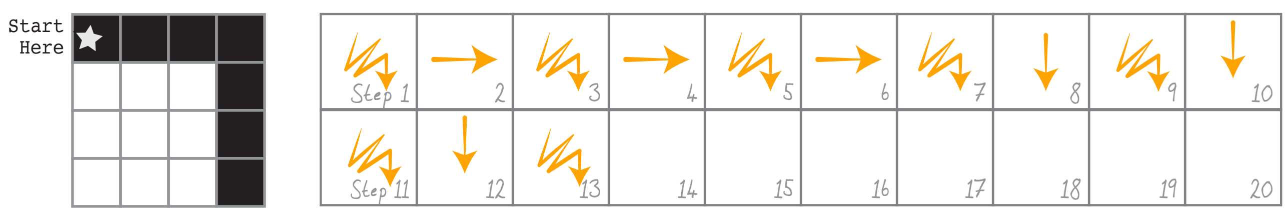
You have just learned how to create algorithms and programs from drawings, and how to draw an image from a program that someone gives to you. During the lesson, you worked with other people to complete your activities. Now you can use the drawings and programs below to practice by yourself.

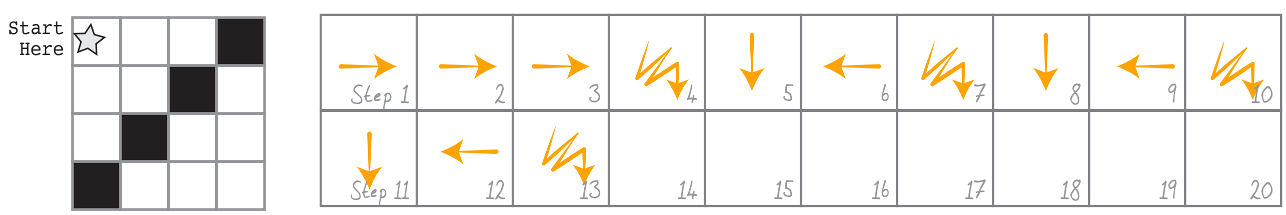
Use the symbols below to write a program that would draw each image.



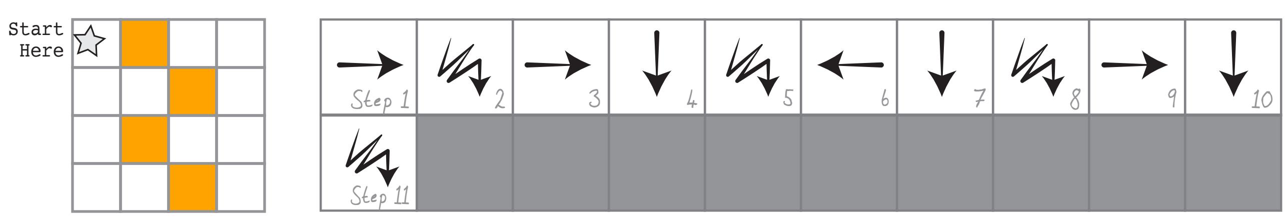
There are multiple options. Here are some good ones:



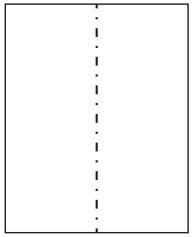




Now, read the program below and draw the image that it describes.

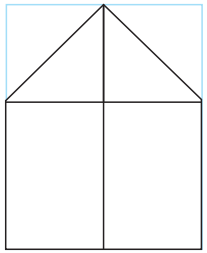


Teacher Key



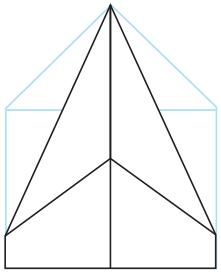
CREASE PAPER
DOWN THE CENTER

1



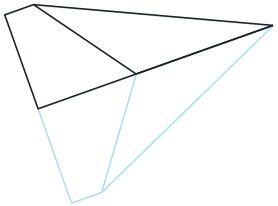
FOLD TOP CORNERS
TO CENTER

2



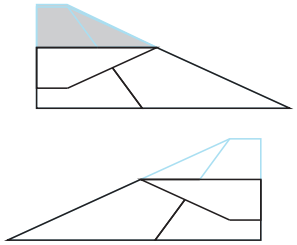
FOLD CORNER SIDES
TO CENTER

3



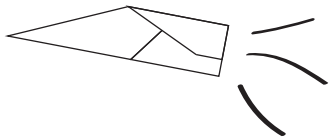
FOLD PAPER
IN HALF AGAIN

4



PULL SIDES DOWN

5



TOSS FINISHED PLANE

6

U

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Name: _____ Date: _____

Teacher Key

Daily Algorithms

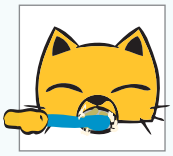
Assessment Worksheet

C O D E

An algorithm is a list of instructions for acomplishing a task. We follow algorithms everyday when it comes to activities like making the bed, making breakfast, or even getting dressed in the morning.

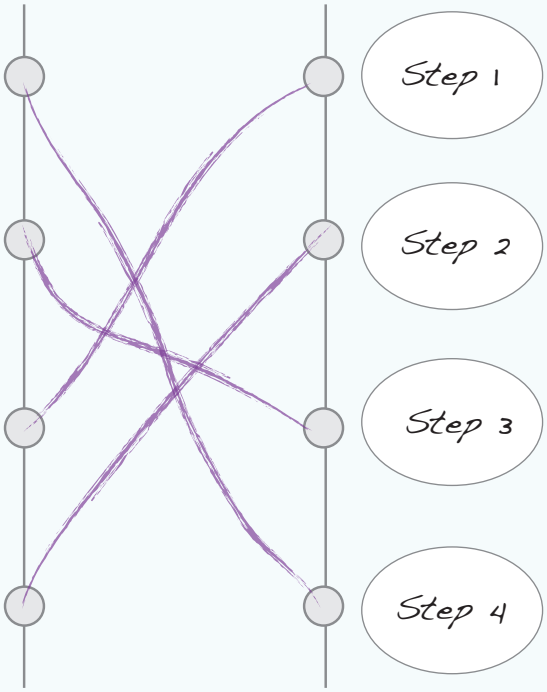
These images are not in order. First, describe what is happening in each picture on the line to its left, then match the action to it's order in the algorithm. The first one has been done for you as an example.

Teeth are clean! 

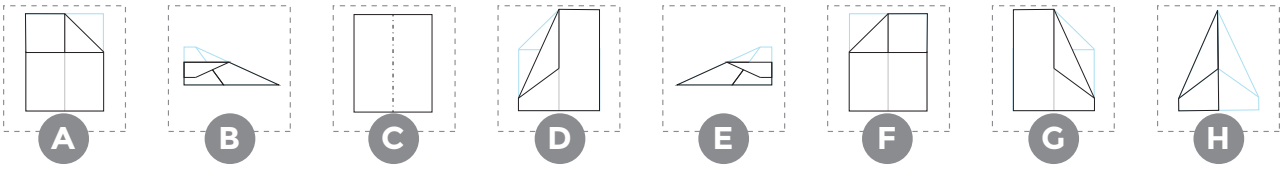
Brush Teeth 

Teeth are dirty! 

Put toothpaste on brush 



Sometimes you can have more than one algorithm for the same activity. The order of some of these steps can be changed without changing the final product. Use the letters on the images below to create two algorithms for making a paper airplane.



ALGORITHM 1: C F A D G H B E

ALGORITHM 2: C A F G D H E B

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Name: _____ Teacher Key

Getting Loopy

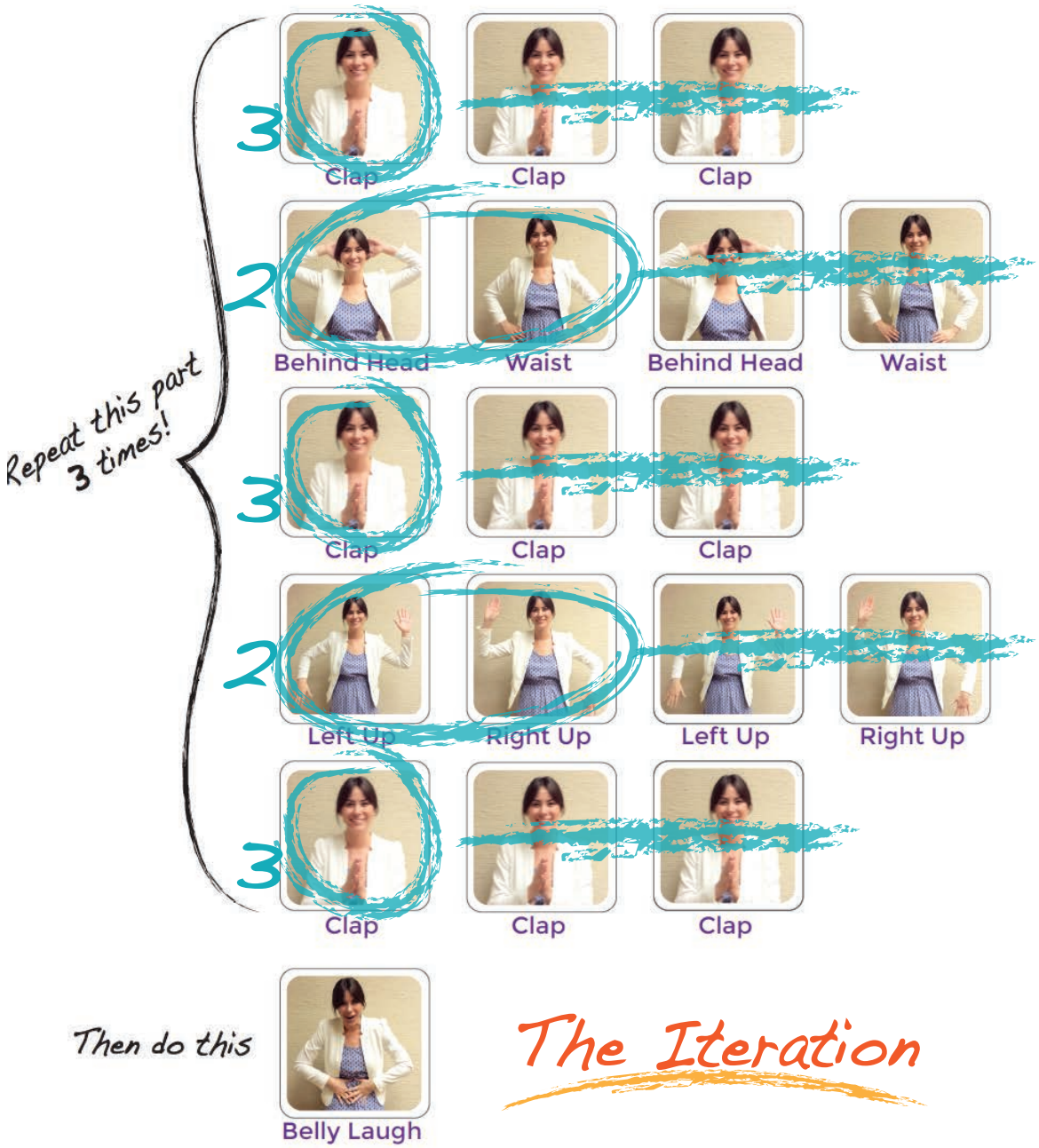
Unplugged Loops Activity

C O D E

Looping can save space!

What if we wanted to take The Iteration dance below and make more loops inside? Can you circle the actions that we can group into a loop and cross out the ones that we don't need anymore? Write a number next to each circle to let us know how many times to repeat the action.

The first line has been done for you.



The Iteration

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Name: _____ Date: _____

Teacher Key

Debugging

Assessment Worksheet

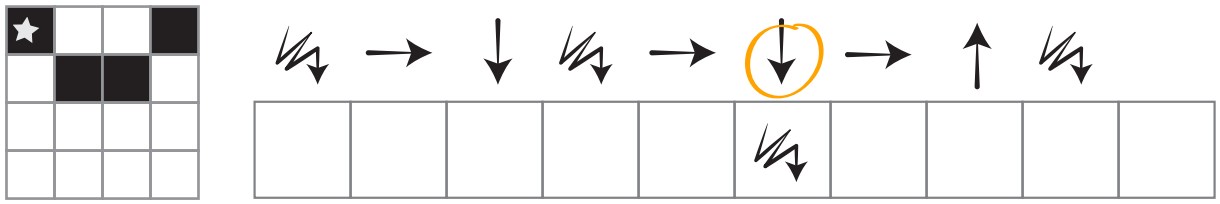
C O D E

Sometimes when you are coding in groups, someone will make an error that will affect everyone.

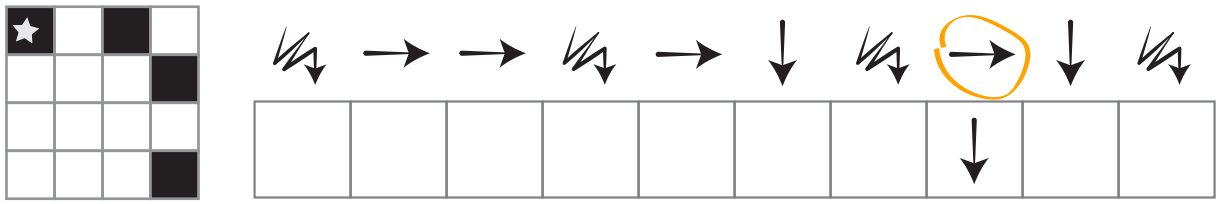
Somebody has already written programs for the images below, but each one has a mistake! Figure out what the programs are *supposed* to look like, and circle the error in each one. Then, draw the correct symbol in the box beneath.

Each program should use the symbols below to draw the image to its left.

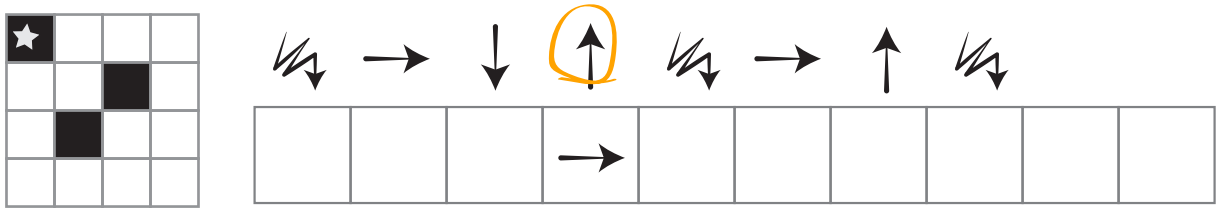
Start Here



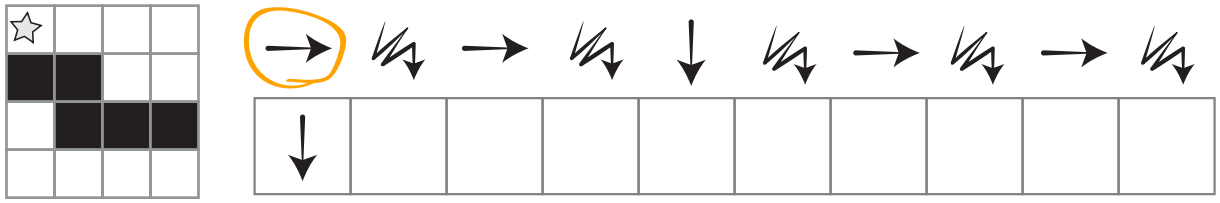
Start Here



Start Here



Start Here



U

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Name: _____ Date: _____

Teacher Key

Conditionals with Cards

Assessment Activity

C O D E

Look at the program below.

The steps below show each team taking turns to play the Conditionals Game. See if you can figure out what happens for each draw. Write down the score during each round along the way. After three rounds, circle the winner.

```
    If (CARD is lower than 5)
*       If ( CARD is BLACK)
            Award YOUR team the same
            number of points on the card.

#       Else
            Award OTHER team 1 point.

    Else
@       If ( CARD is HEARTS)
            Award YOUR team 1 point
```

Here's how the game went:

	TEAM #1	END OF ROUND SCORE	TEAM #2	END OF ROUND SCORE
		0		0
ROUND #1	* 3♠	3	@ 7♥	1
ROUND #2	# 4♥	3	* 4♣	6
ROUND #3	9♣	3	5♦	6

(3 + 0 + 0)

(1 + 1 + 4 + 0)

From Team #1 in Round #2

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Name: _____ Date: _____

Teacher Key

Binary Bracelets

Assessment for Binary Bracelets Lesson

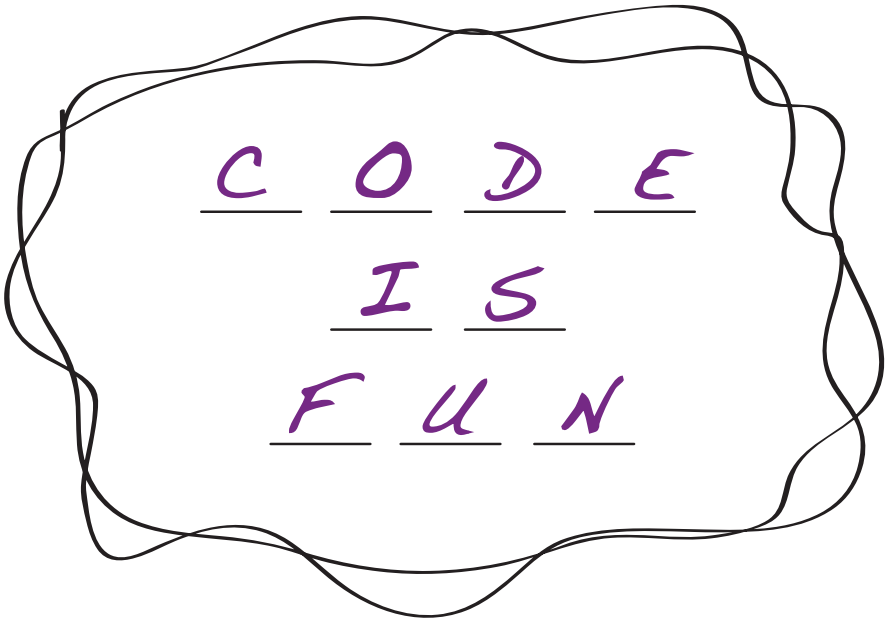
C O D E

Use the Binary Decoder Key below to decode the message at the bottom of the sheet.

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

Can you figure out what the message says?

■□■■ ■■□□	C
■□■■ □□□□	O
■□■■ ■□■■	D
■□■■ ■□■□	E
■□■■ □■■□	I
■□■□ ■■□□	S
■□■■ ■□□■	F
■□■□ ■□■□	U
■□■■ □□□■	N



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Name: _____ Date: _____

Teacher Key

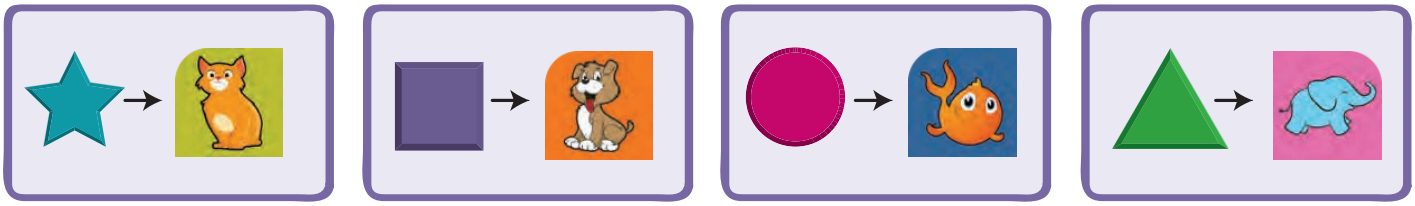
The Big Event

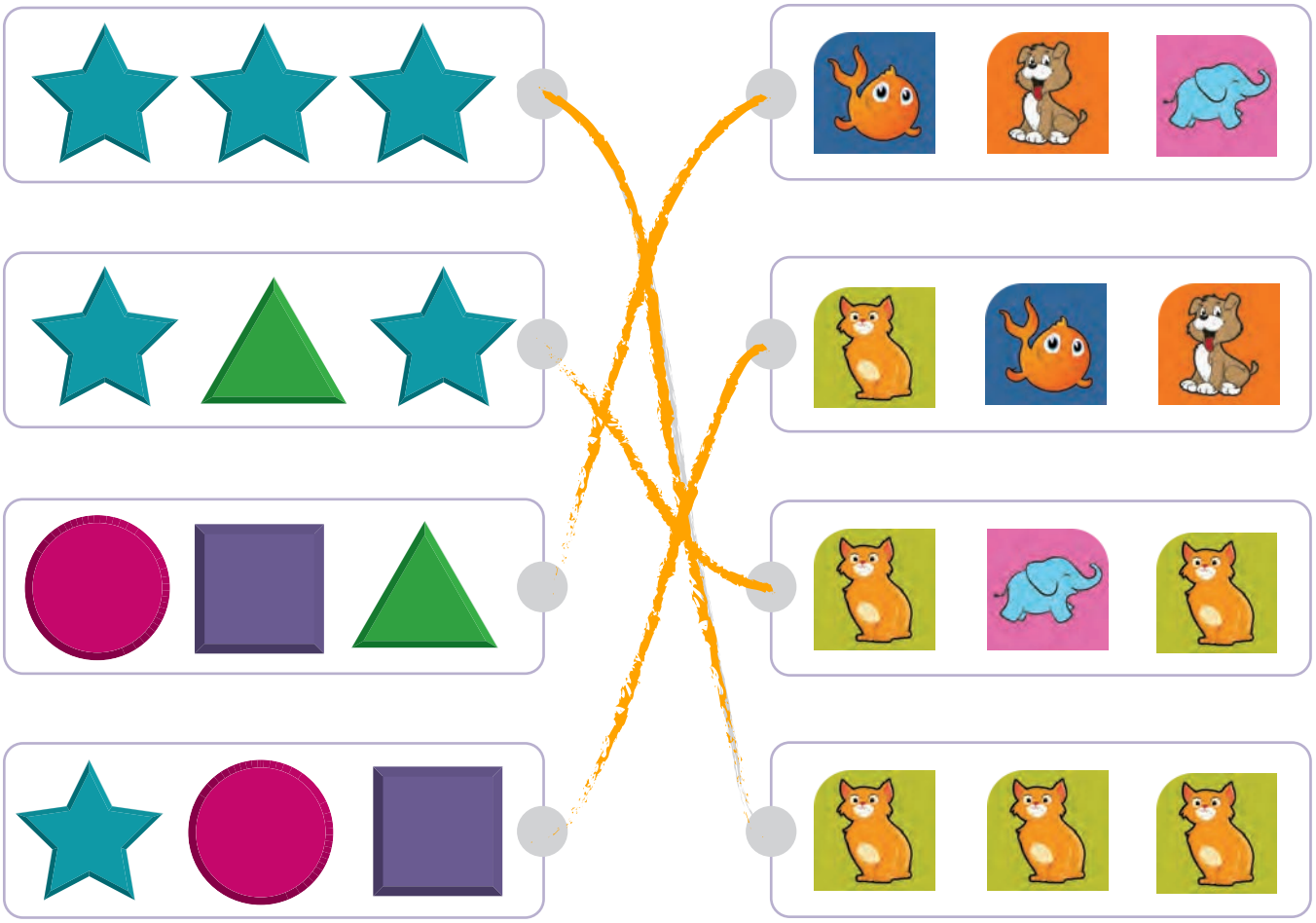
Controlling by Events Assessment

C O D E

You've been given a magical controller that changes the picture on the frame on your desk.

Take a look below to see what each button does. Can you figure out which series of button events will cause your frame to show the pictures on the right? Draw a line from each set of pictures to the button combination that causes it. The first one has been done for you.





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Name: _____ Date: _____

Teacher Key

Your Digital Footprint

Staying Safe and Responsible Assessment

C O D E

Just because you **can** share something online doesn't mean that you **should**!

Cross out the information that you should not share online. Use the words that are leftover as the key to what you should find in the word search.

WORDS

~~1) Your Real Name (NAME)~~
2) Your Online Name (NICKNAME)
~~3) Your Address (ADDRESS)~~
~~4) Your Email (EMAIL)~~
5) Your Favorite Color (COLOR)
6) The Last Book you Read (BOOK)
~~7) Your Credit Card Info (CARD)~~
8) Your Favorite Band (BAND)
~~9) Your Phone Number (PHONE)~~
10) What You Ate Today (FOOD)
~~11) Your Birthday (BIRTHDAY)~~

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

Which animal below has the digital footprint that leaves him or her most unsafe?
HINT: Think about which animal shares the most private information online.

	A) Fran the Fish	B) Betty the Bird	C) Tony the Tiger
Hobbies	swimming	flying	going to the 3rd Street gym
Address	the sea	a nest	523 Green Street
Other	pet's name is Frank	I love seeds!	My real name is Thomas (Hello, I'm Thomas)

Circle One:

A) Fran the Fish

B) Betty the Bird

C) Tony the Tiger

Teacher Key

Follow The Digital Trail

Directions

Follow the trails of Mizzle the Mouse and Electra the Elephant. Fill in the chart below. Then answer the questions.

	Mizzle the Mouse	Electra the Elephant
1. Whose full name do you know?		✓
2. Whose house could you find?		✓
3. Whose birth date do you know?		✓
4. Whose username and password do you know?		✓
5. Who let out a secret on the Internet?		✓
6. Which animal can you describe better from his or her photo?		✓

Question

1. Who can the detectives find out more about, and why?

Electra, because we now know where Electra lives, what she looks like, and private and personal information about her life.

(Point out to students that having a bigger digital footprint means the detectives can learn more about them too.)

2. Which animal has a bigger digital footprint?

Electra, because she put more private and personal information online than Mizzle.

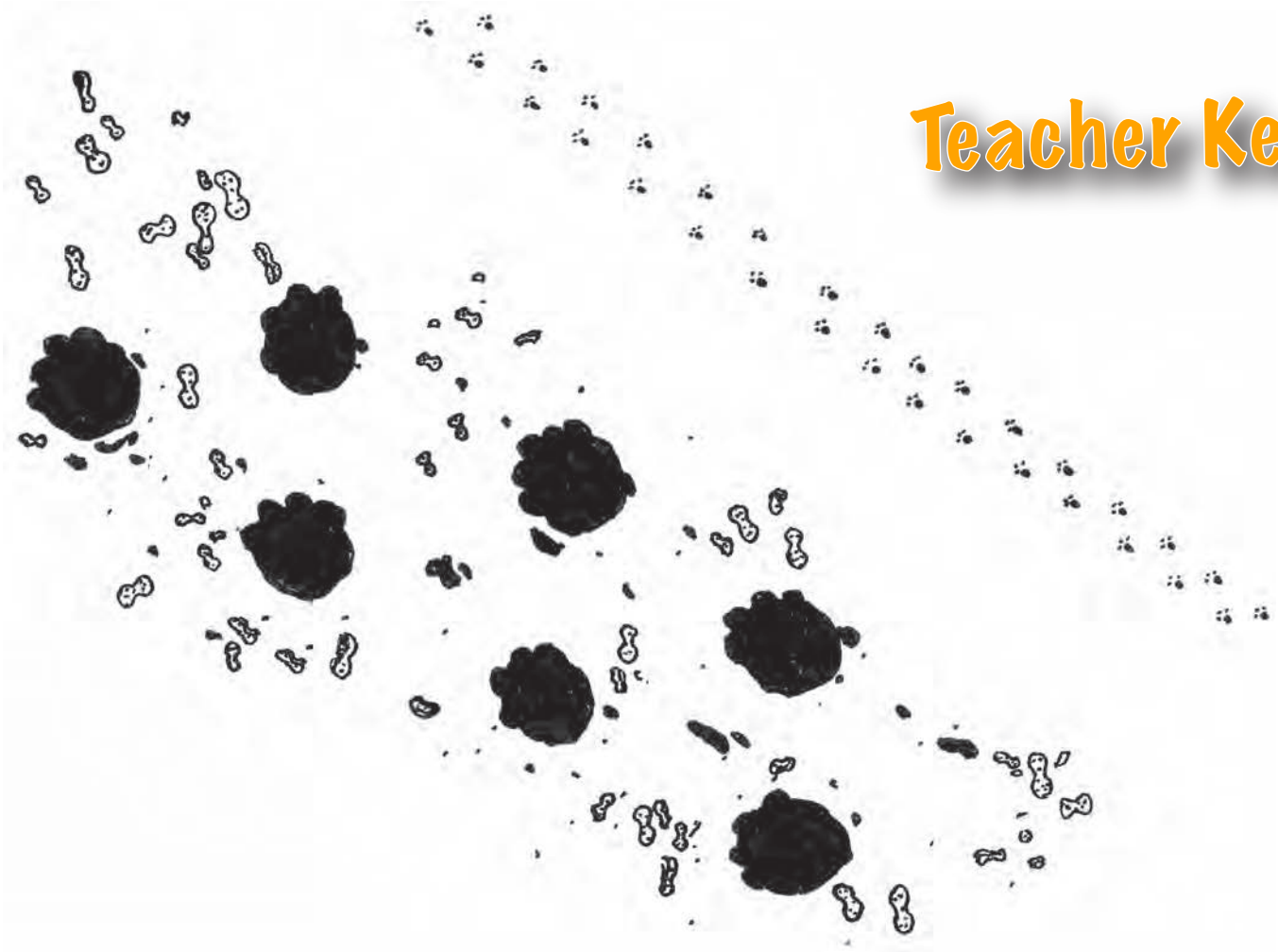
3. Mizzle says some funny things about himself on the Internet. What are they?

He says he likes Swiss cheese, his photo is of cheese, and he has a pet flea.

4. Is there anything that Electra posted on the Internet that could become a problem for her? If so, what and why?

Private and personal information (e.g., address, full name) allows others to learn more about her.

This could be unsafe. Saying that she fights with her brother could hurt her brother's feelings because it is public.



Teacher Key