Counting, Cardinality & Coding: Making Connections to Number Sense
By: Allison Davis ajd349@me.com
Twitter: @KinderCATS or @MissDavisAZ
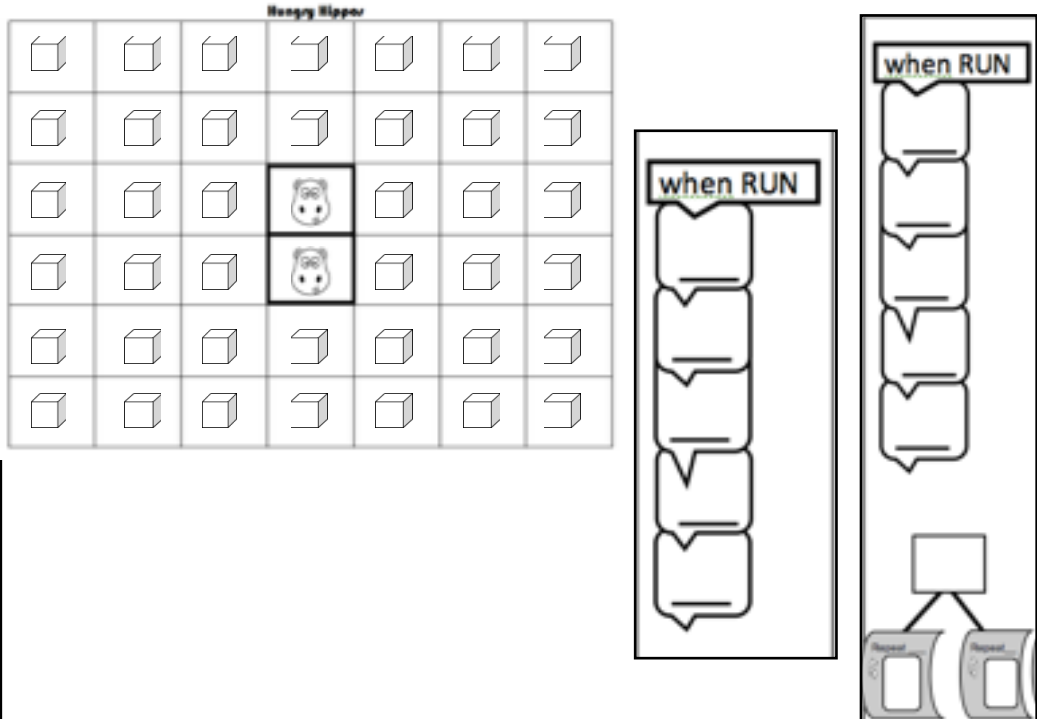### Knox Gifted Academy-Chandler (AZ) Unified School District

Helpful Websites to Get Started

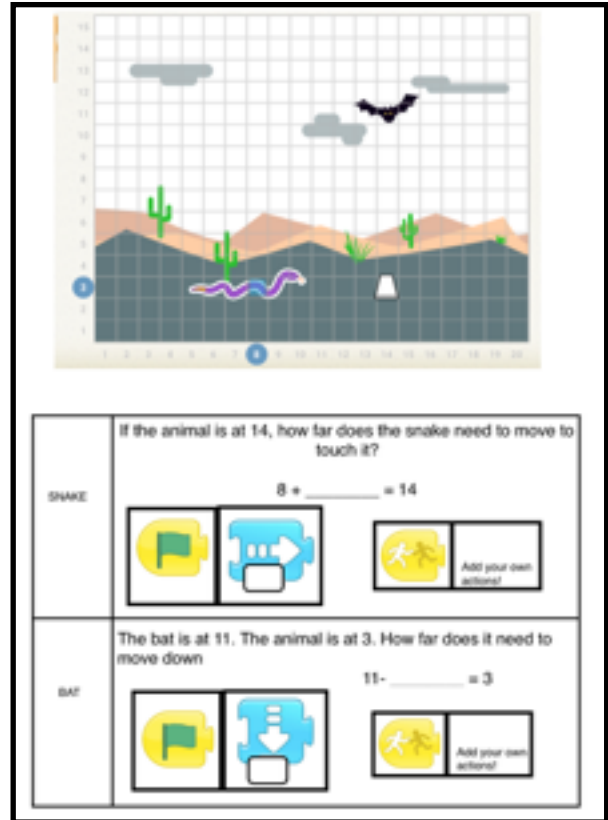|	
www.code.org (Set up a free account to get standards & teacher resources)	**https://education.makewonder.com** **(Dash and Dot robots)**
https://www.scratchjr.org **(Tablet needed for students to create)**	**Check out KGA Kinder CATS on Twitter, Facebook or Instagram**

Games to Work on Counting

DOTTY	
Materials	
1 Game Board 1 1-3 number cube 2 Bears 16 counters (8 of 2 colors)	
Directions	
1. Roll the dice & move that many squares. 2. Try and fill your starting zone first.	

HUNGRY HIPPOS	
Materials	
1 number cube 2 Hippo counters Counters	
Directions	
Roll the dice. Only move if you can get counters. IF-you roll 2,3,4,5 THEN-create a program where your hippo <u>only</u> moves 2 directions IF-you roll 0 THEN-roll again IF- you roll 1 THEN-move to an open spot.	

Using Scratch Jr. for Problem Solving
(pictures created with the Scratch Jr. app and pictures from https://www.scratchjr.org/pdfs/blocks.pdf)

If the animal is at 14, how far does the snake need to move to touch it?

SNAKE

8 + _____ = 14

Add your own actions!

The bat is at 11. The animal is at 3. How far does it need to move down

BAT

11- _____ = 3

Add your own actions!

Program Planning for Dash and Dot Robots

Penguin Problem Solving	Magic Number-100	How would you solve it?

Penguin Problem Solving

The penguin left its nest.

It waddled forward _____ cm.

Then it slid _____ _____ cm.
            forward   backward

It stopped to rest at _____ cm.

Equation to find out where it stopped to rest:

Magic Number-100

Magic Number 100

☐ - ☐ - ☐ = ___

How would you solve it?

30   10   20
60   80

Magic Number 100

☐ - ☐ - ☐ = ___

1.   Roll 5 dice.
2. Pick 3 numbers to make 100 using addition or subtraction. Write your equation.
3. RULE-You cannot go past 100 with any part of the equation.