

Kindergarten Independent Projects

Hello Students, Families and Caregivers,

This resource packet includes multiple projects that students can work on at home independently or with family members or other adults. Each project can be completed over multiple days, and the projects can be completed in any order.

Additional enrichment activities are also available and organized into *Read, Write, Move, Design, and Solve* categories to engage students in learning in many different ways while at home. Please be sure to also pick up an enrichment packet for access to these activities.

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Read *Write* **Move** DESIGN **Solve**

Kindergarten Literacy Project: “With My Own Two Hands”

Estimated Time	Total Time: 60-70 minutes
Grade Level Standard(s)	<p>RL./RI.K.1: With prompting and support, ask and answer questions about key details in a text.</p> <p>W.K.3: Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.</p> <p>W.K.5: With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.</p>
Caregiver Support Option	<p>Help your child access online books about communities online via the CPS Virtual Library</p> <p>Suggested titles:</p> <ul style="list-style-type: none"> • Neighborhood/El Barrio by Mary Berendes • Maybe Something Beautiful/Quizas Algo Hermoso by F. Isabel Campoy and Theresa Howell <p>During the writing process, please encourage your child to sound out words and try their best to write a sentence. Don't worry about correcting spelling -- inventive spelling is appropriate at this age. You can help write words for your child after encouraging them to try on their own.</p>
Materials Needed	<ul style="list-style-type: none"> • Pencil • Blank paper • Small box (cereal, shoe, Kleenex, etc.) • Household objects (crayons, markers, colored pencils, tape, magazine clippings)
Question to Explore	<p>What is not in my community that I would want there? What is needed in my community? How can I make my community a better place to live? How can I serve my community? What kind of positive impact can I make on others?</p>
Student Directions	<p>For this project, you will plan and design a building that will positively impact the community you live in.</p> <ol style="list-style-type: none"> 1. Decide on a building that should be in your neighborhood. 2. Create a plan for your building. Don't forget to include: <ol style="list-style-type: none"> a. The name of the building b. What happens inside the building

- c. How the building makes your community a better place to live
3. Draw a model of your building. What shape is it? What color? What does it have inside?
 4. Build a model of this building using small boxes and other household items (cereal boxes, paper towel rolls, etc.)

Your model should show the outside and inside of the building. Please leave the "roof" off so the interior is visible. Be creative!

Activity 1: Think About It

- A. Read the following poem with an adult.

With My Own Two Hands

By: Ben Harper

I can change the world
With my own two hands
Make a better place
With my own two hands
Make a kinder place
With my own two hands
With my own, with my own two hands
With my own, with my own two hands

- B. Think about your own community and how you can help change it.
- C. Answer these questions on the lines below to help you plan out the kind of building you think will positively impact the community in which you live.
- a. What is this poem about?

- b. How can I make my community a better place to live?

c. What kind of positive impact can I make on others?

d. What is not in my community that I would want there?

Activity 2: Make a Plan

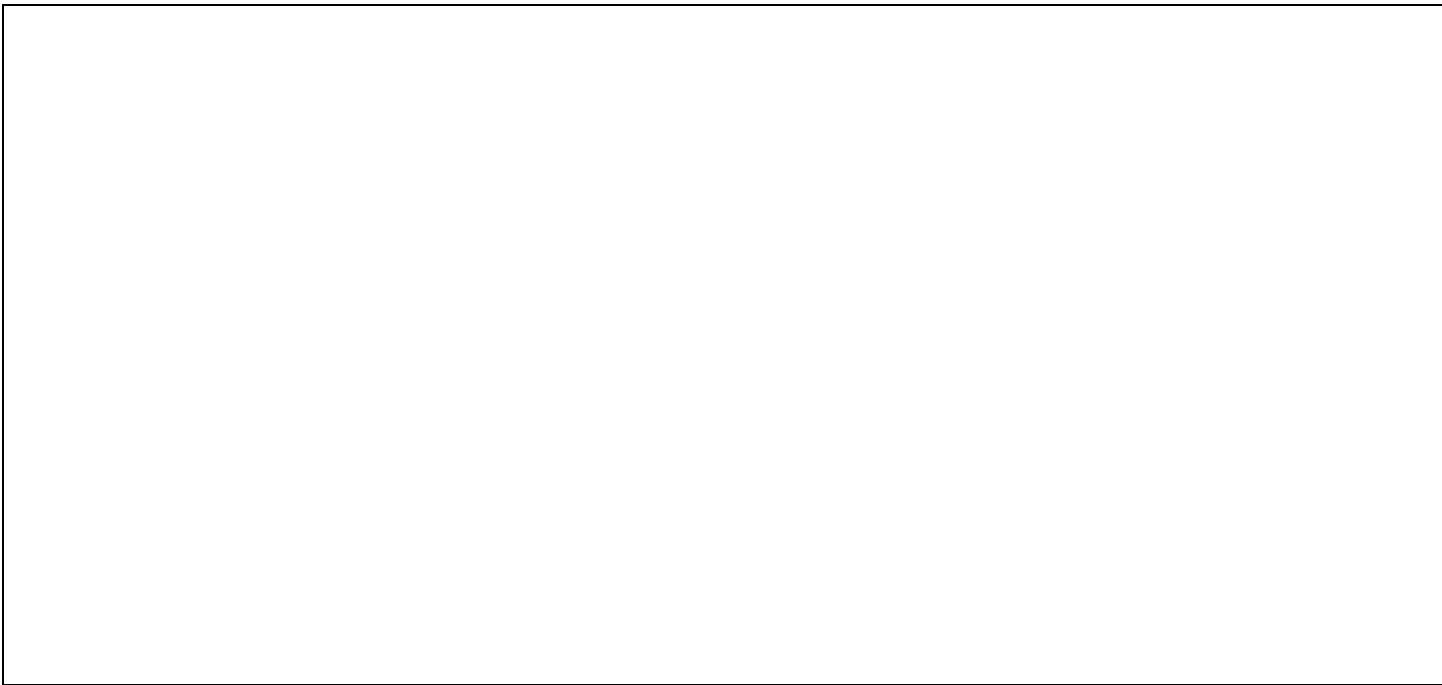
A. Complete the following questions on the lines below.

a. What is the name of your building?

b. What happens inside?

c. How is it useful?

B. Draw a picture of your building below.



Activity 3: Create Your Building

- A. Find a small box in your house.
- B. Gather your decorative materials and have a grown-up help you get started.
- C. Be creative!

Activity 4: Share Your Impact

- A. Present your building to a family member in your house or record a video.
- B. Be sure to include the details you planned in Activity 1.
- C. Recite the following poem with your family member.

With My Own Two Hands
By: Ben Harper

I can change the world
With my own two hands
Make a better place
With my own two hands
Make a kinder place
With my own two hands
With my own, with my own two hands
With my own, with my own two hands

Activity 5: Reflection

- A. How did this project make you feel? How would you describe your finished product? If you had to do it again, what would you do the same or differently next time?
- B. Record your thoughts and feelings in the box and on the lines below. Be proud of yourself!

Additional Activities:

Social Studies - Identifying a need in the community and creating a plan to fulfill that need

Math - Using 2D and 3D shapes to draw and construct a community building

Art - Using various materials to construct and color a model of a building

Social and Emotional Learning - Gaining student ownership by identifying new ways to positively impact oneself and others

Kindergarten Math Project: Math is Everywhere!

Estimated Time	Total Time 60 - 70 Minutes
Grade Level Standard(s)	<p>Counting and Cardinality K.CC.A: Know number names and the current sequence. K.CC.B: Count to tell the number of objects. K.CC.C: Compare numbers.</p> <p>Operations and Algebraic Thinking K.OA.A: Understand addition as putting together an adding to, and understand subtraction as taking apart and taking form.</p> <p>Number and Operations in Base Ten K.NBT.A: Work with numbers 11-19 to gain foundations for place value.</p>
Caregiver Support Option	Read and explain directions for activities. Assist with activities. Ask your child questions about what was learned in activity. (See Questions to Explore below.)
Materials Needed	<p>Number Cards 1-20, Dot Cards 1-20, paper, pencil, and household items such as socks, toys, cotton balls, etc.</p> <p><i>Links to additional digital resources available on the last page of the packet.</i></p>
Question to Explore	<ul style="list-style-type: none"> ● Which group of household items has more? Which group has less? How do you know? ● What number comes after 13? What number comes before 9? ● What does it mean to add? ● What does it mean to subtract?
Student Directions	Each activity below has directions for you to follow.

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Cut out these Number Cards for Fun with Numbers, More or Less Games, and Addition and Subtraction Fun.

1

one

2

two

3

three

4

four

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five

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six

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thirteen

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eighteen

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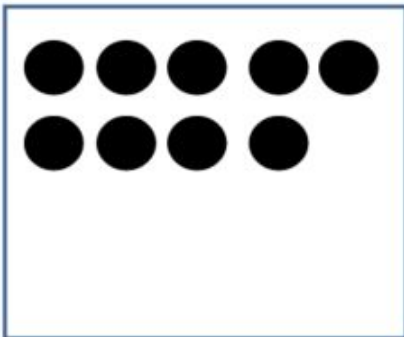
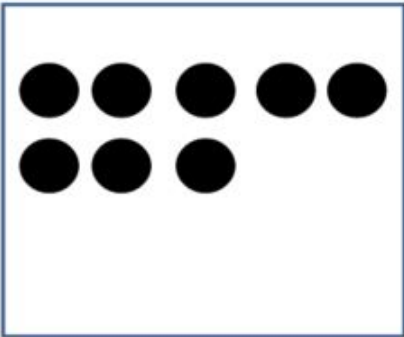
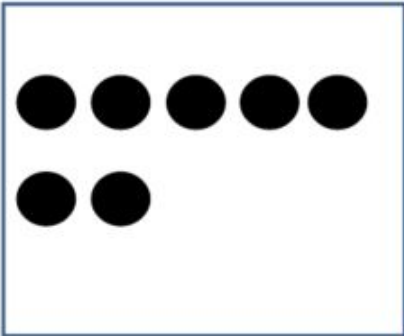
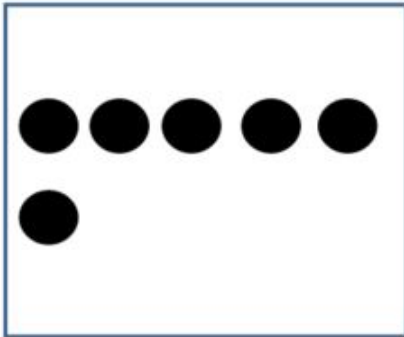
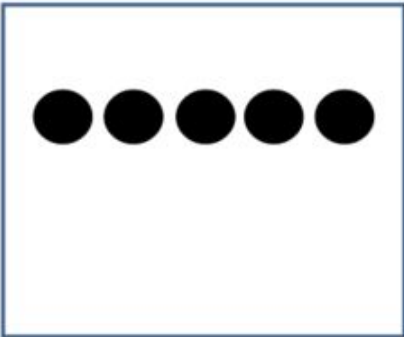
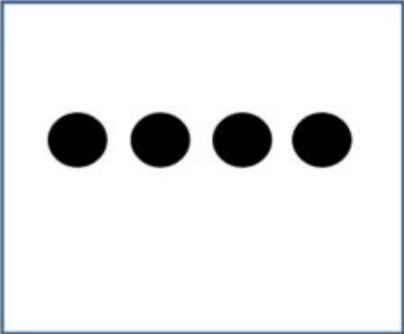
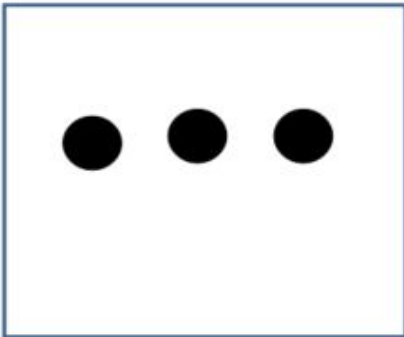
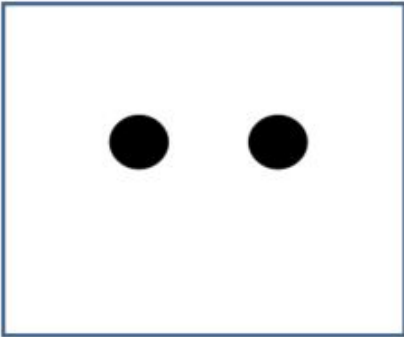
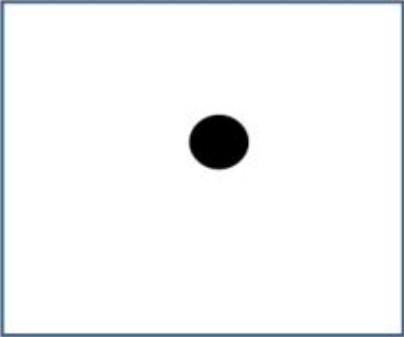
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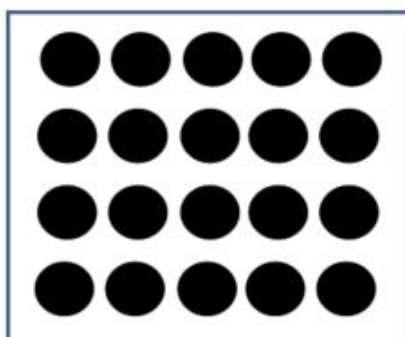
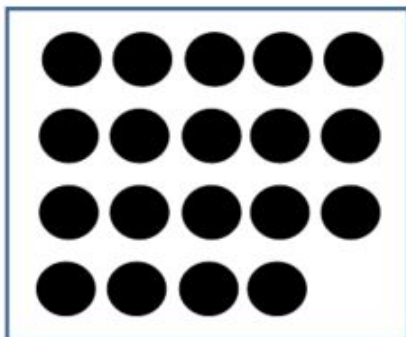
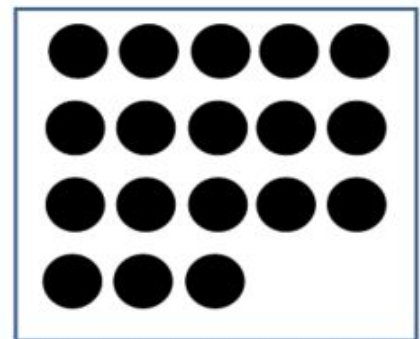
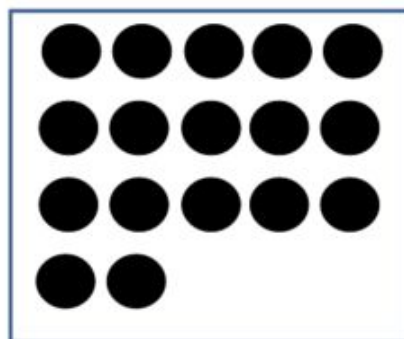
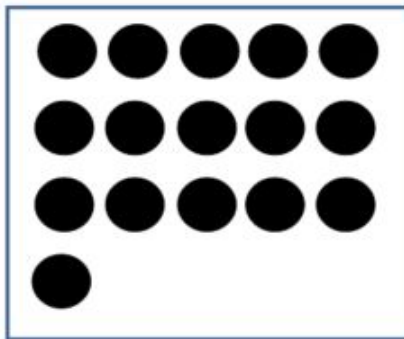
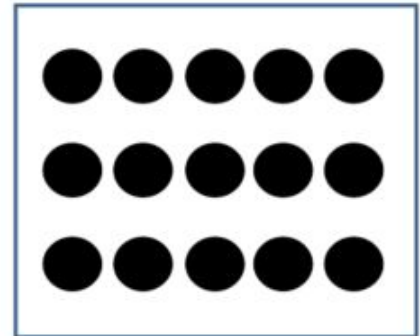
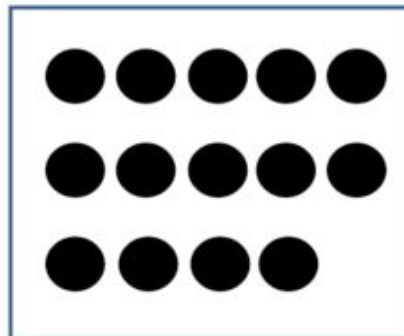
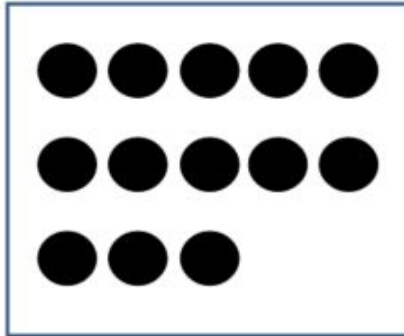
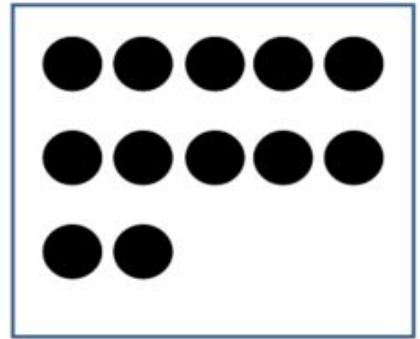
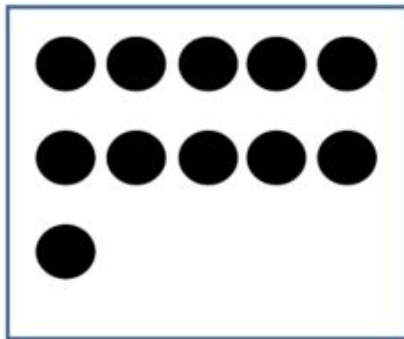
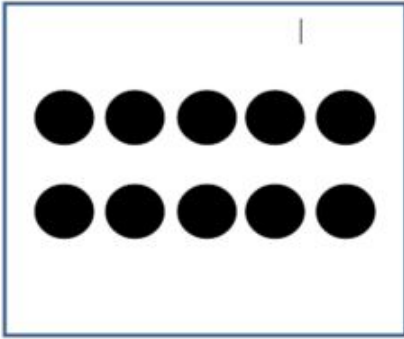
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Cut out these Dot Cards for Fun with Numbers, More or Less Games, and Addition and Subtraction Fun.



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Day 1

Fun with Numbers:

Help your child put the number cards in order from 1-10. Ask your child "What number comes after 4? What number comes before 8?" Have your child match the dot cards to the number cards and say how many. Ask your child "Can you show me 6?" (Your child could show you the number card and/or the dot card. If your child shows you both cards for 6, ask "How do you know these are the same number?") Continue this 4-6 times with different numbers. Ask your child "How did you know how many there were?"

Extension Activity: Have your child pick 2-4 number cards or dot cards and go around the house and gather that number of items for each number. Have your child count the number of items to show that the number of items matches the card chosen.

Day 2

Fun with Numbers:

Help your child put the number cards in order from 11-20. Ask your child "What number comes after 18? What number comes before 13?" Have your child match the dot cards to number cards and say how many. Ask your child "Can you show me 12?" (Your child could show you the number card and/or the dot card. If your child shows you both cards for 12, ask "How do you know these are the same number?") Continue this 4-6 times with different numbers. Ask your child "How did you know how many there were?"

Extension Activity: Have your child pick 2-4 the number cards or dot cards and go around the house and gather that number of items for each number. Have your child count the number of items to show that the number of items matches the card chosen.

Day 3

Fun with Numbers:

Help your child gather 20 household items (such as socks, toys, cotton balls, etc.). Have your child count the group of objects. Have your child select the number card and the dot card that tells how many items there are in all. Have your child say the number. From the items gathered, ask your child to show you 15 items. Continue this 3-5 times with different numbers between 1-20. Ask your child "How did you know how many there were?"

Extension Activity: Have your child choose a number card and make a pile of that many using the household items. Have your child draw a picture of his/her collection on paper, write the number, and the number word. (For example, your child chooses the number 12. He/she gathers 12 toy cars, draws a picture of them, and writes the number 12 and the word twelve.)

Day 4

More or Less Games:

Using the dot cards 1-10, have your child pick 5 cards from that set. From those 5, have your child pick 1 card, count the dots on the card, and tell how many. Have your child find a dot card that is **less than** the first one picked. Have your child find a dot card that is **more than** the first one picked. (For example, the first card picked is an 8. Your child picks 3 and says it is less than 8. Your child picks 9 and says it is more than 8.) Ask your child "How did you know which was more? Which was less?". Repeat the same activity 3-5 more times with different dot cards.

Extension Activity: Have your child gather 10 items from around the house. Have your child sort the items into two groups, match the dot card to each pile and then tell you which is more, which is less, and how they know.

Day 5

More or Less Games:

Using the number cards 1 -15, have your child pick a card from that set. Have your child find a number card that is **less than the one picked**. Then have your child find a number card that is **more than the one picked**. (For example, the first card picked is 13. Your child says 11 is less than 13. Your child picks 15 and says it is more than 13.) Ask your child "How did you know which was more? Which was less?". Repeat the same activity 3-5 more times.

Extension Activity: Have your child gather 11-15 items from around the house. Have your child sort the items into two groups, match the number card to each pile and then tell you which is more, which is less, and how they know.

Day 6

More or Less Games:

Using the number cards 16-20, have your child pick 1 card and say the number on the card. Have your child find a number card that is **less than the first one picked**. Have your child find a number card that is **more than the one picked**. (For example, the first card picked is a 17. Your child says 16 is less than 17. Your child says 19 is more than 17.) Ask your child "How did you know which was more? Which was less?". Repeat the same activity 3-5 more times.

Extension Activity: Have your child gather 16-20 items from around the house. Have your child sort the items into two groups, match the number card to each pile and then tell you which is more, which is less, and how they know. Have your child draw the two groups of items, write the number for each. Have your child write these sentence with their drawing,

- There are more _____ than _____.
- There are less _____ than _____.

Day 7

Addition and Subtraction Fun:

Ask your child to solve the following addition and subtraction problems. Your child can verbally state the answer or write down the problem and answer on paper. If your child is able to solve these problems easily, give him/her problems up to 20. (For example, $4 + 8$, $6 + 7$, $9 + 8$, etc.)

$2 + 3 =$	$5 + 3 =$	$3 + 4 =$	$6 + 4 =$	$1 + 8 =$	$4 + 5 =$
$9 - 6 =$	$7 - 4 =$	$5 - 3 =$	$8 - 2 =$	$6 - 2 =$	$4 - 3 =$

Extension Activity: Using the number cards 1-10, have your child pick 2 cards and use those numbers to write an addition problem and a subtraction problem. For example, your child picks 3 and 8. He/she writes $3 + 8 = 11$ and $8 - 3 = 5$.

Day 8

Addition and Subtraction Fun:

Using the dot cards 1-10, have your child choose two and use those numbers to write four different facts and solve each. For example, your child picks the dot cards 4 and 6. See the below for an example. Have your child repeat with different dot cards filling in the frames below.

4, 6				
$4 + 6 = 10$				
$6 + 4 = 10$				
$10 - 4 = 6$				
$10 - 6 = 4$				

Extension Activity: Repeat the above activity adding in the dot cards 11-15. Your child can write the four different facts and solve each on paper.

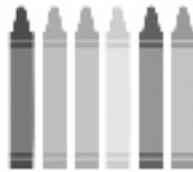
Day 9

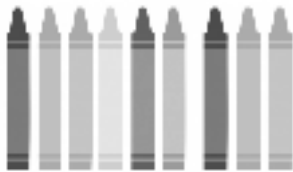
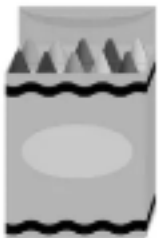
Addition and Subtraction Fun:

The students in Mrs. B.'s class are helping to see how many art supplies they have in the classroom.

1. The students find that there are full boxes of crayons (10 crayons) and extras. Help them to count the crayons.







2. There are 5 paintbrushes in the art area. The students find 9 more paintbrushes. How many do they have now?

Show how you got your answer.

3. There are 6 jars of paint in the easel. They need to have 10 jars. How many more jars do they need?

Show how you got your answer.

Day 10

Reflection:

Have your child choose two number cards from 1-20 and complete the following activities:

- Say the name of the numbers chosen. *(For example, numbers 3 and 12 were chosen).*
- Identify which card is more than the other card. *(For example, 12 is more than 3).*
- Identify which card is less than the other one chosen. *(For example, 3 is less than 12).*
- Write and solve an addition problem using the two numbers. *(For example, $12+3 = 15$).*
- Write a subtraction problem using the two numbers. *(For example, $12 - 3 = 9$).*

Ask your child:

- What did you enjoy about doing these activities?
- What other ways could you use the number cards and the dot cards?

Cross Content Connections:

ELA - read number names, drawing pictures of collections and labeling with number names, writing more or less sentences to compare collections.

Social Studies - identify and use household items

Physical - use of fine motor skills (using fingers for counting and cutting out dot and number cards)

Additional Digital Resources:

Illustrative Mathematics

<https://tasks.illustrativemathematics.org/content-standards>

- [More or Less Handfuls](http://tasks.illustrativemathematics.org/content-standards/K/CC/A/tasks/683)
<http://tasks.illustrativemathematics.org/content-standards/K/CC/A/tasks/683>
- [My Book of Five](http://tasks.illustrativemathematics.org/content-standards/K/OA/A/3/tasks/1408)
<http://tasks.illustrativemathematics.org/content-standards/K/OA/A/3/tasks/1408>
- [What Makes a Teen Number?](http://tasks.illustrativemathematics.org/content-standards/K/NBT/A/1/tasks/1404.html)
<http://tasks.illustrativemathematics.org/content-standards/K/NBT/A/1/tasks/1404.html>

Open Middle

<https://www.openmiddle.com/>

- Caterpillar Counting
<https://www.openmiddle.com/caterpillar-counting/>
- Adding and Subtracting Within 10
<https://www.openmiddle.com/adding-and-subtracting-within-10/>
- Decomposing Numbers Less Than Or Equal to 10
<https://www.openmiddle.com/decomposing-numbers-less-than-or-equal-to-10/>

Kindergarten Science Project: What Do Plants Need?

Estimated Time	Total Time 60 - 70 minutes
Grade Level Standard(s)	K-ESS3-1 Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
Caregiver Support Option	Support is needed for the following: <ul style="list-style-type: none">• reviewing activity directions• engaging in discussions with the students around the questions embedded in this project (siblings and other members of the household can be engaged in the dialogue as well)• serving as the audience for the final project presentation
Materials Needed	Paper, Pencil, Packet
Question to Explore	How do plants and animals get what they need to live and grow? Why do some plants grow well and others don't?
Student Directions	Each activity has directions for you to follow.

Activity 1: My Initial Ideas About Plants (15 min.)

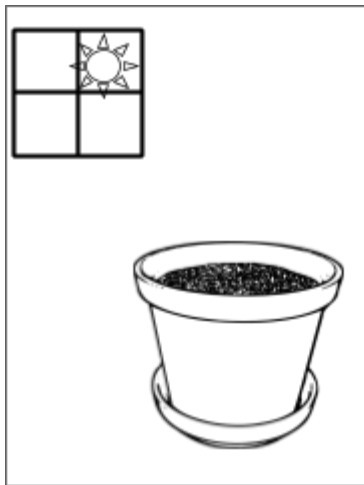
Your neighbor went away for a week and when she came back one of her plants was dead.



- Why do you think the plant died? How do you think she can make sure it doesn't happen again when she goes away next time?
- On a blank sheet of paper, draw your ideas about what your neighbor needs to do next time to keep her plant alive. Explain your drawing to someone in your home.

Activity 2: Which will grow better? (15min.)

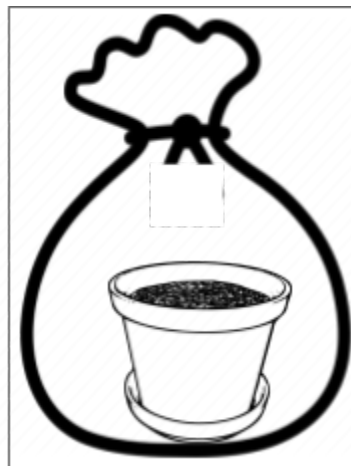
A. Which will grow better: a plant by the window or a plant in a room with no windows? Draw what you think each plant will look like over time. Why do you think that? How do you know?



B. Which will grow better: a plant that is watered or a plant that is given no water? Draw what you think each plant will look like over time. Why do you think that? How do you know?



C. Which will grow better: a plant in a closed bag or a plant not in a bag? Draw what you think each plant will look like over time. Why do you think that? How do you know?



Activity 3: What do plants and animals need to live and grow? (15 min.)

A. As the following story is read to you, think about these two questions:

What do plants need to live and grow? What do animals need to live and grow?

Reading: [Above and Below \(Español\)](#) (Source: Amplify Science)

Above and Below the Ground

All around us, plants and animals are busy getting what they need to live and grow. They are busy above the ground, where we can see them. They are busy below the ground, where we can't see them. What are plants and animals doing to get what they need? What's happening above the ground? What's happening below the ground?



Plants Above and Below

Above the ground, sunlight is shining on the leaves of a dandelion plant. The leaves are catching the sunlight. Plants have leaves to get the light they need to live and grow. Below the ground, the dandelion roots are getting water from the soil. The roots grow deep down to reach the water. Plants have roots to get the water they need to live and grow.

Animals Above and Below

Above the ground, a cow is eating the leaves of grass plants. Animals need food to live and grow. Lots of animals get their food from plants. These animals eat leaves and other parts of plants to get the food they need. Below the ground, a worm is digging a hole to find food. A fox is sleeping, safe in its den. The fox made its den by digging a hole. Many animals dig holes to stay safe below the ground.



Plants and Animals

Above the ground, plants are using their leaves to get light. Beetles are eating dead leaves that fell from the tree. Below the ground, plants are getting water with their roots. Ants are carrying seeds from plants to their holes underground. The ants eat the seeds. A mole is digging a hole below the ground. The mole is looking for worms to eat. Some animals eat other animals instead of plants.

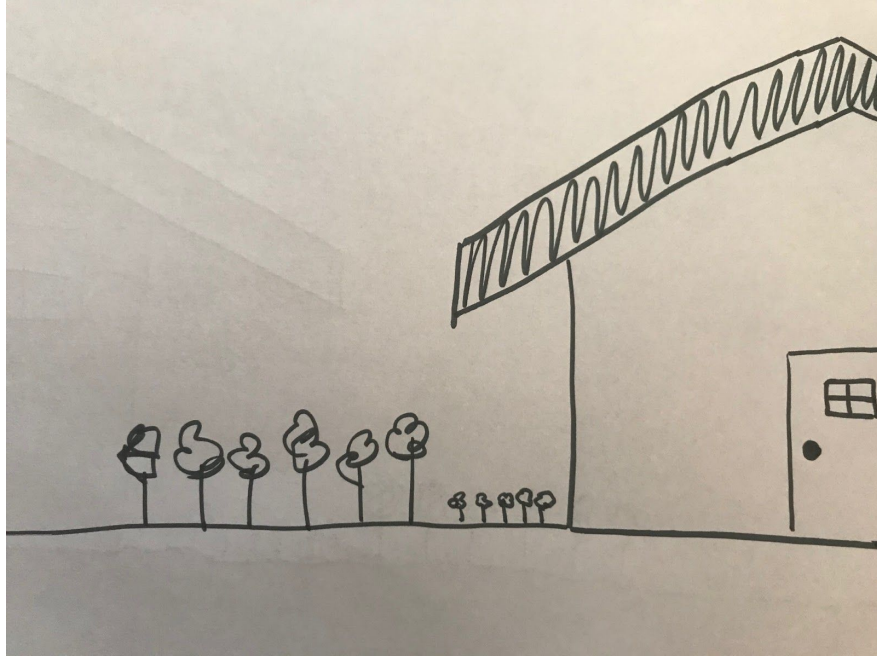


Everywhere you look, plants and animals are busy getting what they need.

- a. In the pictures, circle examples of things that plants and animals need to live and grow.
- b. What are all the things that plants need to live and grow?
- c. What are all the things that animals need to live and grow?

Activity 4: (15 min.)

Here is a picture of your friend Juan's garden when he comes back from being away for a long time.



- A. Some of Juan's plants are growing well.
 - a. Circle the plants that are growing well.
 - b. Share your ideas: Why are they growing well even though Juan was away and no one way around to take care of them?
 - c. Draw your ideas: How did the plants get what they needed to grow well?
- B. Some of Juan's plants aren't growing well.
 - a. Point to the plants that are not growing well.
 - b. Share your ideas: What can Juan do for the plants that are not growing well? Explain how that will help.

Grade K-2 Social Science Project: Together when Apart

Estimated Time	Total Time 60 - 70 minutes
Grade Level Standard(s)	<p>SS.IS.2.K-2. Explore facts from various sources that can be used to answer the developed questions.</p> <p>SS.IS.3.K-2. Gather information from one or two sources with guidance and support from adults and/or peers.</p> <p>SS.IS.4.K-2. Evaluate a source by distinguishing between fact and opinion.</p> <p>SS.IS.5.K-2. Ask and answer questions about arguments and explanations.</p>
Caregiver Support Option	<p>Notes on the structure:</p> <ul style="list-style-type: none"> • Activities are designed to be done in order - each one builds on the other so you should no skip activities • Activities are an average of 15-20 mins each. More than one can be done in a day. <p>Before giving the activities to students, caregivers might:</p> <ul style="list-style-type: none"> • spend time reading and discussing the "student directions" together. Encourage them to ask any clarifying questions. • When reading the texts, students should circle or underline any unfamiliar words so you both can define them together <p>In this particular lesson, it's important to note that:</p> <ul style="list-style-type: none"> • student(s) are developing coded messages, you might want to review the directions and the "Coding Code of Conduct" on p. 11 • Consider making your own coded message for them and ask your student to decipher • Ask them to share and explain their codes to you - on p. 10 students will review and revise their message. Consider using the examples provided to discuss and reflect on what can be better.
Materials Needed	Writing tool, paper
Question to Explore	How can we communicate with others to share our thoughts and ideas?
Student Directions	When we are separate, we have to find ways to communicate ideas, thoughts, and feelings. During certain periods of history, people have wanted to communicate with each other in ways that only friends and allies would understand. So they developed codes! In this weekly inquiry, students examine codes used in history, from the Culper Spy Ring to the use of Morse Code. Throughout the week, they'll use their learning to develop their own code to communicate with friends near and far.

Day 1 (Activity 1): Examining Historical Codes (15-20 min)

This week we're thinking about the question:
"How can we communicate with others to share our thoughts and ideas?"

Your challenge this week:
Connect to someone using a "Coded Message."

Today you will:

- Examine historical codes
- Decode a message

You will need:

- Paper or notebook
- Writing tool

Let's Get Started!

A. THINK: Do you know what these mean?

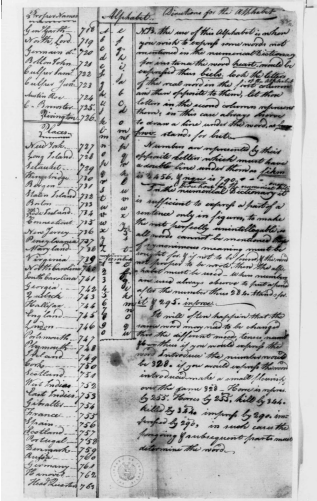



Guess what? You just cracked a code!

B. EXPLORE:

Many amazing codes have been used throughout history.

Code: a system of signals, letters, numbers, or symbols used to send messages, sometimes secretly

	<h3>Culper Spy Ring Code from the American Revolution</h3> <p>It may be hard for us to read this writing, but in 1778 this code was used to send secret messages to George Washington during the Revolutionary War. It has 763 numbers that are code for different words, names, and places.</p>																																																																																
<h3>International Morse Code</h3> <ol style="list-style-type: none"> 1. The length of a dot is one unit. 2. A dash is three units. 3. The space between parts of the same letter is one unit. 4. The space between letters is three units. 5. The space between words is seven units. <table border="0"> <tr> <td>A</td><td>• —</td> <td>U</td><td>• • • —</td> </tr> <tr> <td>B</td><td>• • • • •</td> <td>V</td><td>• • • — •</td> </tr> <tr> <td>C</td><td>• — • —</td> <td>W</td><td>• — • • •</td> </tr> <tr> <td>D</td><td>• — • • •</td> <td>X</td><td>• — • — •</td> </tr> <tr> <td>E</td><td>• • • • •</td> <td>Y</td><td>• — • — • •</td> </tr> <tr> <td>F</td><td>• • • • • •</td> <td>Z</td><td>• — • — • —</td> </tr> <tr> <td>G</td><td>• — • • •</td> <td></td><td></td> </tr> <tr> <td>H</td><td>• • • • • •</td> <td></td><td></td> </tr> <tr> <td>I</td><td>• • •</td> <td></td><td></td> </tr> <tr> <td>J</td><td>• • • —</td> <td></td><td></td> </tr> <tr> <td>K</td><td>• — • • •</td> <td>1</td><td>— • • • • •</td> </tr> <tr> <td>L</td><td>• • • • • •</td> <td>2</td><td>• • • • • •</td> </tr> <tr> <td>M</td><td>• — • —</td> <td>3</td><td>• • • • • • •</td> </tr> <tr> <td>N</td><td>• — • • •</td> <td>4</td><td>• • • • • • • •</td> </tr> <tr> <td>O</td><td>• — • — •</td> <td>5</td><td>• • • • • • • • •</td> </tr> <tr> <td>P</td><td>• • • • • • •</td> <td>6</td><td>• — • • • • •</td> </tr> <tr> <td>Q</td><td>• — • — • •</td> <td>7</td><td>• • • • • • • •</td> </tr> <tr> <td>R</td><td>• • • • • • •</td> <td>8</td><td>• — • • • • • •</td> </tr> <tr> <td>S</td><td>• • • • • • • •</td> <td>9</td><td>• • • • • • • • •</td> </tr> <tr> <td>T</td><td>• — • • •</td> <td>0</td><td>• — • — • — • —</td> </tr> </table>	A	• —	U	• • • —	B	• • • • •	V	• • • — •	C	• — • —	W	• — • • •	D	• — • • •	X	• — • — •	E	• • • • •	Y	• — • — • •	F	• • • • • •	Z	• — • — • —	G	• — • • •			H	• • • • • •			I	• • •			J	• • • —			K	• — • • •	1	— • • • • •	L	• • • • • •	2	• • • • • •	M	• — • —	3	• • • • • • •	N	• — • • •	4	• • • • • • • •	O	• — • — •	5	• • • • • • • • •	P	• • • • • • •	6	• — • • • • •	Q	• — • — • •	7	• • • • • • • •	R	• • • • • • •	8	• — • • • • • •	S	• • • • • • • •	9	• • • • • • • • •	T	• — • • •	0	• — • — • — • —	<h3>Morse Code</h3> <p>This code was created to send messages by telegraph, which is a way to send sound messages far away through a wire. It uses short and long sounds (called dots and dashes) to make letters and numbers. It was used more often in the 1800s and 1900s.</p>
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	<h3>Binary Code</h3> <p>This is a way for computers and electronics to talk to each other. It is made up of two numbers: "1" and "0." Putting these numbers together in different ways is how computers send messages and information.</p>																																																																																

C. DO:

Your challenge this week:

Connect to someone using a “Coded Message.”

Today, you will read some coded messages!

DIG DEEPER

Want to learn more about codes?

You can read about the pigpen cipher, which turns a tic-tac-toe board into an easy-to-use and memorable code! https://en.wikipedia.org/wiki/Pigpen_cipher

Day 2 (Activity 2): Developing Your Code (15-20 min)

This week we're thinking about the question:
"How can we communicate with others to share our thoughts and ideas?"

Your challenge this week:
Connect to someone using a “Coded Message.”

Today you will:

- Learn about Morse code
- Create your “Coded Message”

You will need:

- Paper or notebook
- Writing tool

Let's Get Started!

A. THINK

Before telephone, television, or internet, how do you think people might have sent messages across a great distance?

B. EXPLORE

OPTIONAL: Watch the video to hear each letter of the alphabet in Morse code, one of the most famous codes in the world! https://www.youtube.com/watch?v=6PRY-LczCB4&feature=emb_title

Read on to learn more about Morse code.



Morse code is named after Samuel Morse, who helped invent it more than 200 years ago.



A telegraph is used to make and send the sounds used in Morse code.



People everywhere can use Morse code. It can be as easy as flashing a light or making sounds to represent the dashes and dots that make each letter.

C. DO

Keep in mind your challenge this week: Connect to someone using a “Coded Message.”

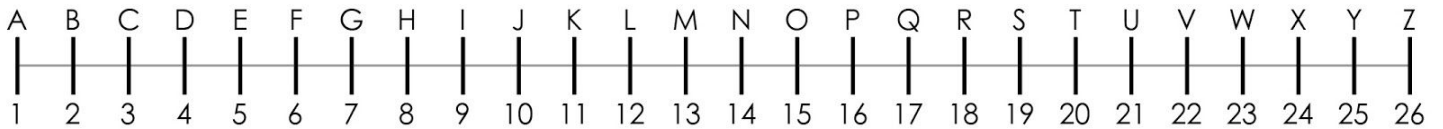
Today, you will create your first draft of your “Coded Message.”

Your “Coded Message” should:

- Tell who you would like to communicate with
- Explain why it's important to communicate with this person
- Include a message that can be decoded using the suggested number line code below or by making up your own code! (You may use the “Drafting Template” handout to write out your idea.)

Be sure to save the draft of your “Coded Message” so you can work on it next time!

Number Line Code:



Make Your Own Code:

A	B	C	D	E	F	G

H	I	J	K	L	M	N

O	P	Q	R	S	T	U

V	W	X	Y	Z

Drafting Template

I want to say "Hi" to: _____

Because: _____

Write your message here using **regular words**. Remember to leave a space between words!

Change your message to **code** here! Remember to leave a space between words!

Day 3 (Activity 3): Evaluating the Work (15-20 min)

This week we're thinking about the question:
"How can we communicate with others to share our thoughts and ideas?"

Your challenge this week:
Connect to someone using a "Coded Message."

- Today you will:
- Reflect on your progress
 - Make a plan to improve your work

- You will need:
- Your work from previous activities
 - Paper or notebook
 - Writing tool

Let's Get Started! _____

A. THINK

You've already created the first draft of a "Coded Message."
Pause to look at your work.

B. EXPLORE

<p>...you prefer, you can download a PDF packet including all of this week's materials!</p> <p style="text-align: center;">DAY 2 Drafting Template</p> <p>Say "Hi" to someone in a secret code!</p> <p>I want to say "Hi" to: <u>My cousin</u></p> <p>Because: <u>I miss him</u></p> <p>First, write the person's name in the TOP ROW of boxes below. Write one letter per box and leave a space between words.</p> <table border="1" data-bbox="100 1360 808 1480"><tr><td>H</td><td>I</td><td></td><td>S</td><td>A</td><td>M</td><td>V</td><td>E</td><td>L</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td>9</td><td></td><td>19</td><td>1</td><td>18</td><td>21</td><td>5</td><td>21</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> <p>Next, use a key to write your message in code in the BOTTOM ROW of boxes.</p>	H	I		S	A	M	V	E	L							8	9		19	1	18	21	5	21							<p>Look at this student's "Coded Message" and ask:</p> <ul style="list-style-type: none">● Is it clear who the message is for?● Does the plan explain why they want to send a message to that person?● Is the coded message accurate using the code key below?
H	I		S	A	M	V	E	L																							
8	9		19	1	18	21	5	21																							

C. DO

Keep in mind your challenge this week: Connect to someone using a "Coded Message."

You already have a first draft, and today you will complete the next step of the challenge!

1. Pencils down! This is a thinking exercise!
2. Look at your work and ask:
 - Is it clear who my message is for?
 - Did I explain why I want to send a message to this person?
 - Is my coded message accurate?
3. Wait, still don't touch your work! First, make a work plan! Complete one of these sentences:
 - I will add...
 - I will try...
 - I will adjust...

DIG DEEPER

Test your code!

Share your message and key with someone else.

Can they decode your message?

Day 4 (Activity 4): Finalizing the Work (15-20 min)	
This week we're thinking about the question: "How can we communicate with others to share our thoughts and ideas?"	Your challenge this week: Connect to someone using a "Coded Message."
Today you will: <ul style="list-style-type: none">● Finalize your "Coded Message"	You will need: <ul style="list-style-type: none">● Your work from previous activities● Paper or notebook● Writing tool

Let's Get Started! _____

A. THINK

It's time to take steps to finalize your work based on your work plan.

Remember your work plan? That's when you said:

- I will add...
- I will try...
- I will adjust...

Decide or discuss:

What will you do next to finalize your work?

B. EXPLORE

Check out some "Coded Messages" by other students.

What changes did this person make to their work?

How do these changes help to make the message clearer?

<p>...when you can download a PDF packet including all of this week's materials!</p> <p>DAY 2 Drafting Template</p> <p>Say "Hi" to someone in a secret code!</p> <p>I want to say "Hi" to: <u>My cousin</u></p> <p>Because: <u>I miss him</u></p> <p>First, write the person's name in the TOP ROW of boxes below. Write one letter per box and leave a space between words.</p> <table border="1"><tr><td>H</td><td>I</td><td></td><td>S</td><td>A</td><td>M</td><td>U</td><td>E</td><td>L</td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td>9</td><td></td><td>19</td><td>1</td><td>13</td><td>2</td><td>15</td><td>2</td><td></td><td></td><td></td><td></td></tr></table> <p>Next, use a key to write your message in code in the BOTTOM ROW of boxes.</p>	H	I		S	A	M	U	E	L					8	9		19	1	13	2	15	2					<p>First Draft</p>
H	I		S	A	M	U	E	L																			
8	9		19	1	13	2	15	2																			
<p>DAY 2 Drafting Template</p> <p>Say "Hi" to someone in a secret code!</p> <p>I want to say "Hi" to: <u>My COUSIN</u></p> <p>Because: <u>I miss him.</u></p> <p>First, write the person's name in the TOP ROW of boxes below. Write one letter per box and leave a space between words.</p> <table border="1"><tr><td>H</td><td>I</td><td></td><td>S</td><td>A</td><td>M</td><td>U</td><td>E</td><td>L</td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td>9</td><td></td><td>19</td><td>1</td><td>13</td><td>2</td><td>15</td><td>12</td><td></td><td></td><td></td><td></td></tr></table> <p>Next, use a key to write your message in code in the BOTTOM ROW of boxes.</p>	H	I		S	A	M	U	E	L					8	9		19	1	13	2	15	12					<p>Final Draft</p>
H	I		S	A	M	U	E	L																			
8	9		19	1	13	2	15	12																			

C. DO

Today, you will work to finalize your "Coded Message" to best represent your setting.

1. Get out your first draft and any other materials from previous activities.
2. Think about your work plan.

3. Decide: Do you need a fresh piece of paper to start over? Or will you just edit your first draft to make your final draft?
4. Get to work finalizing your "Coded Message"!

Be sure to save your "Coded Message" so you can share it later!

Day 5 (Activity 5): Reflecting and Sharing (15-20 min)	
<p>This week we're thinking about the question: "How can we communicate with others to share our thoughts and ideas?"</p>	<p>Your challenge this week: Connect to someone using a "Coded Message."</p>
<p>Today you will:</p> <ul style="list-style-type: none"> ● Reflect on your "Coded Message" ● Share your "Coded Message" and its code key 	<p>You will need:</p> <ul style="list-style-type: none"> ● Your finished "Coded Message" and copy of its code key ● "Sharing" handout (optional)

Let's Get Started!

A. THINK

Like spies of the past, could you and other people in your life communicate through more coded messages?

B. EXPLORE

Anytime we share messages, we need to be thoughtful about how they will be received.

The Coding Code of Conduct:

- Be Responsible, Respectful, and Safe when sending and sharing messages.
 - For more about mindful messaging, check out this important video.
<https://www.commonsense.org/education/videos/mindful-messaging>
-

C. DO

Now that you've completed your "Coded Message" it's time to share your work with others!

Here are some ideas for connecting with others:

- Share your "Coded Message" and its code key with the person who it was intended for (or use the "Sharing" handout to get a written response)

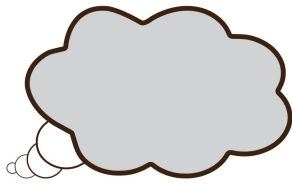
- Share your code key with others and continue sending messages back and forth!
- Ask an adult to help you share your code key and a new message online with the #inquirEDtogether hashtag.
- Keep your "Coded Message" and its code key as a historical record that you and others can look back on later.

Sharing

Please take a look at my work and fill this out.

Thank you!

This work made me... (circle one)



think...



feel...



wonder...

Want to write a message back?

Use my code key to make your own message!

Additional Activities:

By examining codes used in history, from the Culper Spy Ring to the use of Morse code, and by developing your own code to communicate with friends near and far, you are using many social science skills, but also so much more! There are so many connections to language arts, math and science that you can continue to explore. Here are a few ways to extend your learning and make connections to other subjects.

Math: As we've learned this week, coding is all about identifying patterns. "Patterns" are models and/or designs that help us identify things in common with one another. To get a better understanding of patterns try thinking about all the different patterns you notice in your home. Rugs and blankets often have different patterns that repeat. What about kitchen or bathroom tiles? Maybe the bricks on the outside of your home?

Science: Think about the world we live in and the different ways we can decode and find patterns in nature. Go for a walk around the block with your family and pick a couple of leaves from different types of trees on your way. Study the veins of the leaves? What do you notice among the different leaves? Similarities? Differences? Consider journaling your findings.