



4- HReading
Connections

All Together Now



N EXTENSION
Early Childhood



N | 
EXTENSION

MISSION

Engaging with Nebraskans wherever they are,
connecting them with the resources, research and
innovation of the University of Nebraska.

360

Extension
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Working in all **93**
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Connecting with
1.9 million
Nebraskans

In **8** major
priority areas

History



collaborative
summer library program™

N

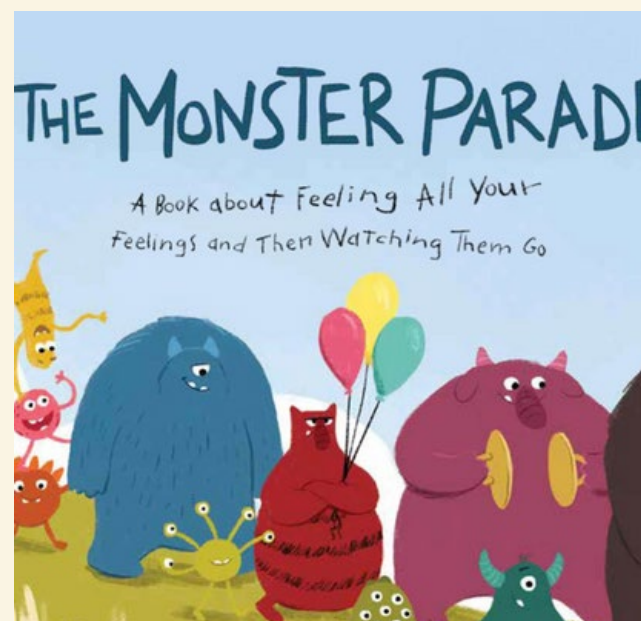
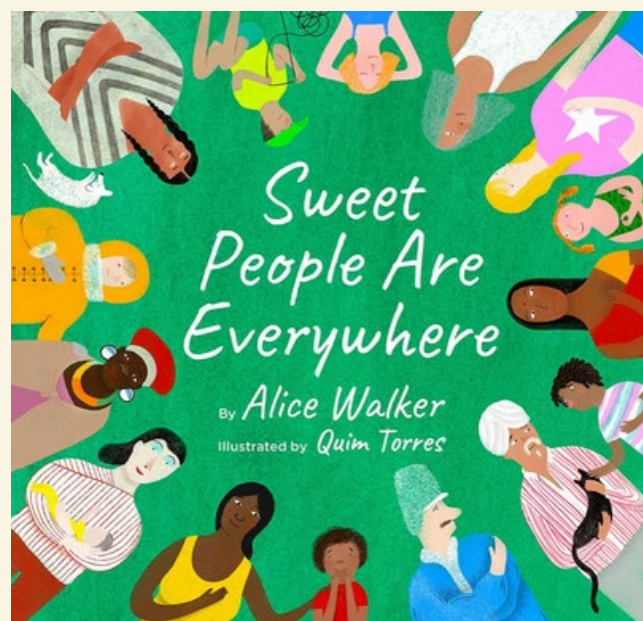
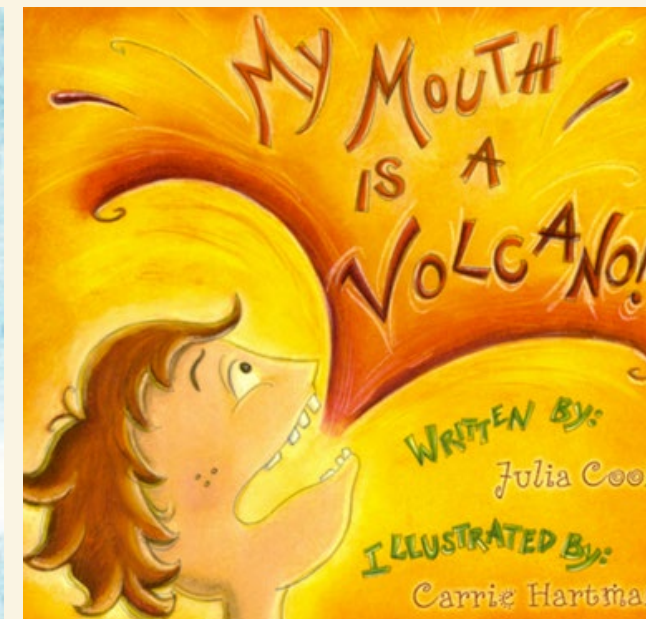
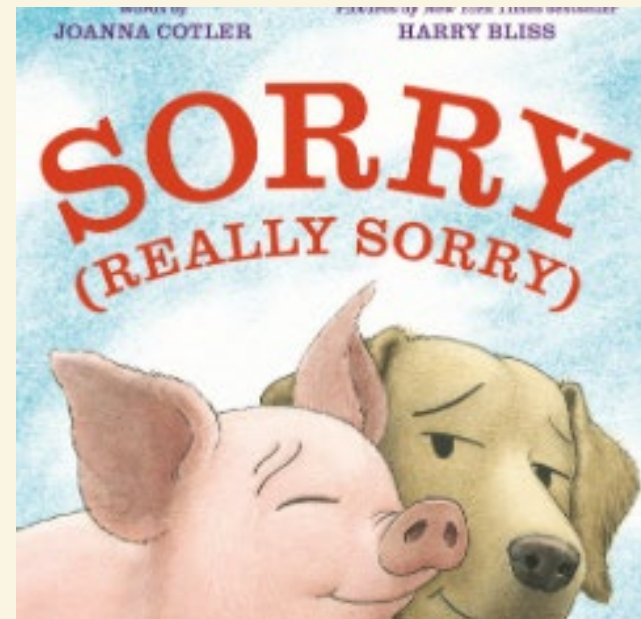
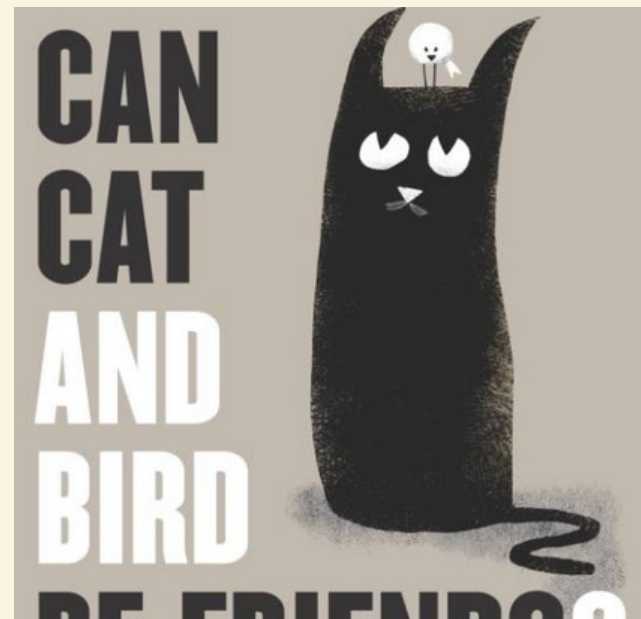
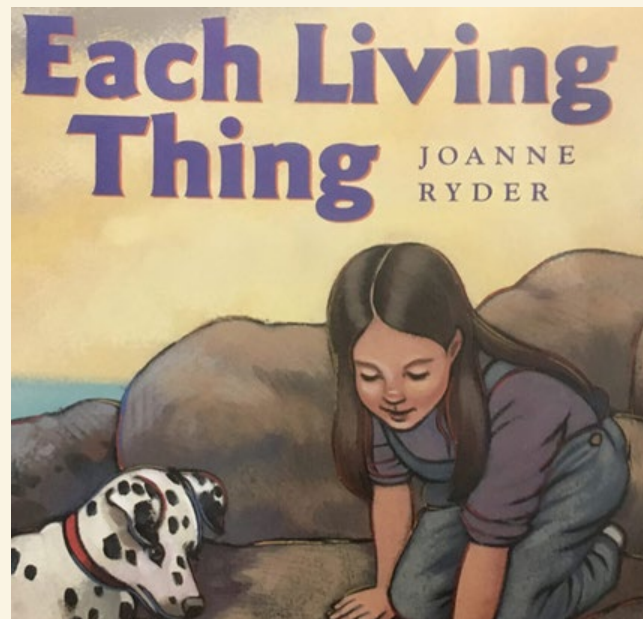


EXTENSION



2023 STEM Imagination Guides

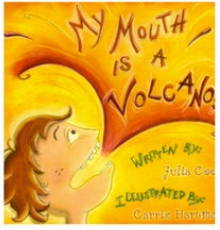
"All Together Now"



ALL TOGETHER NOW | ISSUE 1 | LISTENING

STEM IMAGINATION GUIDES NEBRASKA EXTENSION

MY MOUTH IS A VOLCANO
BY: JULIA COOK



CONVERSATION STARTERS


- Look at the cover of this book. What do you think the story might be about?
- In the story, the main character has trouble holding waiting their turn to share their thoughts and ideas while others are talking. How do you feel when you are interrupted by someone?
- Think of a time when you had something really important to say. Did you blurt it out or wait your turn to share?
- Why do you think it might be important to listen to others?

STEM CONNECTION

ECHOLOCATION

Supplies:

- 1 Pie tin
- 2 Paper towel tubes
- Partners




Discovery Methods:

- Find a partner for this quick and easy echolocation activity.
- One partner will speak quietly through a paper towel tube aimed towards the pie tin.
- The other partner will aim their paper towel tube toward the pie tin and listen.
- Can you hear what the other person is saying?
- What happens if you turn the pie tin differently or aim your paper towel tubes differently?
- As sound waves bounce off of the pie tin, they travel into the other paper towel tube.

Echolocation Facts:

- Many animals like bats and whales use echolocation for purposes such as hunting and navigating.
- Echolocation works when an animal emits a click or high pitched sound. These sounds produce waves that bounce off of objects and return back to the animal. This allows for animals to determine distance and size of items or other animals in front of it.



The University of Nebraska does not discriminate based upon any protected status. Please see go.unl.edu/nondiscrimination.



QR Code for website:
<https://child.unl.edu/nebraska-4-h-stem-reading-connections-program>

Pilot Study

This Imagination Guide provides a great jumping off point of a theme and can go many directions for learning content.



Nebraska E Learning Guidelines

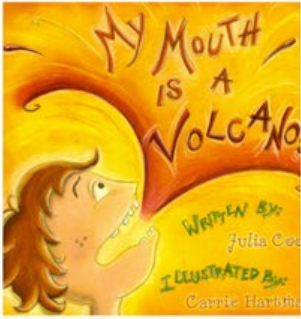


2023 Guide Template

ALL TOGETHER NOW | ISSUE 1 | LISTENING

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NATURE NATURE FRIENDS

Sometimes we just need someone to talk to. This activity allows children to create a nature friend! Gather or purchase medium-sized rocks. Clean and dry the rocks and provide paint for children to create a friend. Googly eyes may also be glued on if desired.



CREATIVE ARTS STORM ART



Gather materials such as blue painter's tape, silver & black duct tape, dark colored construction paper, crayons, oil pastels, etc. Find videos or sound clips of storm sounds and provide space for children to illustrate how a storm sounds/feels with the materials.

INFANT/TODDLER SOUND EXPLORATIONS

Some sounds are pleasant to our ears and some are unpleasant. Provide a variety of noise-making items for infants and toddlers to explore. This may include rain sticks, chimes, music boxes, etc. You can also make your own noise-makers with empty bottles and various items. For example, place a handful of bells into a clean, dry bottle. What does it sound like when shaken?



Background

The Nebraska 4-H Reading Connections program identified books that support the Library Commission's 2022 Summer Reading Program, *Oceans of Possibilities*. This STEM Imagination Guide aims to provide early childhood professionals and parents with books, guided questions, and expanded learning resources to support literacy development, introduce STEM concepts, and enhance positive relationships.

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Scan QR Code or Visit:
go.unl.edu/imagination for more guides



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Each Living Thing



ALL TOGETHER NOW | ISSUE 8 | STEWARDSHIP

STEM IMAGINATION GUIDES NEBRASKA EXTENSION

EACH LIVING THING
BY: JOANNE RYDER



CONVERSATION STARTERS

- This story talks about the different ways that you can protect living things. How many living things can you see on the cover?
- What kinds of animals do you think are creepy? Do you think those animals need to be protected?
- How can you help others to appreciate nature and care about animals?

STEM CONNECTION

BUG HOTEL

Supplies:

- Toilet paper rolls
- Yarn
- Small sticks
- Paper
- Optional: paper straws



Discovery Methods:

- Cut a long piece of yarn and string it through the toilet paper roll as a hanger.
- Use small sticks, paper, paper straws or other natural materials to fill the toilet paper roll. There should be room for insects to climb in, but not so much extra space that the materials fall out easily.
- Hang your bug hotel outside in a tree or bush and come back to see what decides to make a home there!

Bug Hotel Facts:

- There are many ways to make bug hotels for insects to come and live. Some are large and expensive to make, while others are simple and inexpensive to make such as the one in the activity.
- Insects may enter the bug hotel to lay eggs, hibernate, or simply find shelter.
- Bug hotels are fun to watch to see what insects are attracted to it and they can help you understand the different species in your area.
- Try documenting the different creatures that use your bug hotel by drawing pictures or writing about them to share with others.
- Resource: <https://umdearborn.edu/environmental-interpretive-center/education-programs/pollination-project/insect-hotels>

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Each Living Thing



NATURE

LEAVE NO TRACE

Visit www.Int.org. Browse the 7 principles which include leaving what you find and being considerate of others. Think of ways to practice these principles with children. Take a walk outdoors and brainstorm why it is important to conserve nature and "keep it wild". Pick up trash on the playground or around the childcare program. What happens if we leave trash and other waste outside? Help children understand that small changes can help in big ways.



CREATIVE ARTS

NATURE JOURNALS



Fold construction paper or plain white paper in half (hamburger style) and staple or tie several sheets together. As you complete the activities in this guide and others, have children draw and write about what they are learning, doing, and experiencing related to nature and science.

INFANT/TODDLER

NATURE I-SPY

This activity can be done indoors or outdoors. If participating indoors, bring in various nature items and lay them out on the floor or throughout the room. Say "I spy..." and name an item for children to find. The activity can also be completed outdoors without having to set anything up! Just say "I spy..." and have fun exploring!!



NOTE: If you are unable to or find the featured story, check out these other similar suggestions!

- **THE BUG GIRL**
BY SOPHIA SPENCER
- **LOVE THE EARTH**
BY JULIAN LENNON

Background

The Nebraska 4-H Reading Connections program identified books that support the Library Commission's 2023 Summer Reading Program, *All Together Now*. This STEM Imagination Guide aims to provide early childhood professionals and parents with books, guided questions, and expanded learning resources to support literacy development, introduce STEM concepts, and enhance positive relationships.

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Thank You, Omu

ALL TOGETHER NOW | ISSUE 3 | KINDNESS

STEM IMAGINATION GUIDES NEBRASKA EXTENSION

THANK YOU OMU!
BY: OGE MORA



CONVERSATION STARTERS

- What kind of food makes you hungry when you smell it?
- How did Omu make her friends feel when she shared her thick, red stew with them?
- We add kindness to the world when we do good deeds without expecting something in return. Omu demonstrated kindness when she shared her stew with the people in her neighborhood. What are some things that you share with others?
- Pretend you are invited to Omu's for a feast. What would you bring? Why?

STEM CONNECTION

CHART REACTIONS TO SMELL

Supplies:

- Air freshener spray with label covered
- 12 small paper cups
- Variety of foods
- Nail or pen to poke holes
- Large chart paper
- Markers

Discovery Methods:

- Have children close their eyes and breathe deeply. Spray air freshener. Encourage children to use their sense of smell to determine the scent. Just like how the scent of the air freshener filled the room, the aroma of Omu's thick, red stew wafted out the window and out the door, down the hall, toward the street, and around the block. This made many people in her neighborhood hungry.
- Let's test our sense of smell. Create scent containers. Fill 6 cups with a small amount of food from your refrigerator or cabinets (e.g. banana, orange, crackers, peppermint).
- Poke holes in the bottom of the 6 remaining cups. Cut approximately 1 inch off the top of the 6 cups. Discard the tops of the cups. Place the cut cups, hole side up, inside each cup with food. This will visually hide the food inside while letting the scent of the foods escape through the holes.
- Number each cup. Invite children to take turns smelling each container.
- Make a chart so the children can record their reactions to each numbered container by drawing smiley faces, sad faces, or confused faces. Analyze the chart together and reveal the scents.
- Ask, "Which smell was liked the most/least? How many more liked one smell versus the other?"

Did You Know?
The senses of taste and smell are closely related. Our sense of smell enhances the flavor of foods through our taste buds. When we smell something delicious, our mouths get excited and bodies get ready to eat by producing saliva. That is why our mouths often water when we are hungry.

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New This Year!



Board Books for
Infants/ Toddlers



Spanish Options



Lessons

EXTENSION LET YOUR HEAD RULE

- 😊 HAPPY
- 😡 ANGRY
- 😞 BORED
- 😵 CONFUSED
- 🤔 CURIOUS
- 😄 EXCITED
- 😞 LONELY
- 😞 UPSET
- 😞 SAD
- 😱 SCARED
- 😱 SHOCKED
- 😱 SURPRISED

HEAD

- Knowing & naming our emotions
- Finding common ground in teams
- Putting the pieces together

HEAR

- Collaborative Art: "I Am Enough"
- Group garden mural
- Take home "I Am" art piece



HANDS



- Simple/ Complex machines
- Create a Gumball Machine or Marshmallow Catapult

HEALTH

- Friendship Apple Salad
- Characteristic of a good friend
- Teamwork
- Apple STEM activity - Stay strong and not turn brown
- Apple painting





Heading Into This Together

2023 4-H Reading Connections – All Together Now

Grade Level
Adaptable K – 6th Grade

Lesson Length
60 minutes

Potential Careers

- Health Care
- Teachers
- Human Resources
- Counselor

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The 4-H Reading Connections program engages youth in extended 4-H learning opportunities in partnership with the Collaborative Summer Library Program.

Which 4-H “H”: Head, Heart, Hands, and Health

Head, Heart, Hands, and Health are the four Hs in 4-H. They are the four values members work on through fun and engaging programs. In 4-H, we believe in the power of young people. We see that every child has valuable strengths and real influences to improve the world around us.

4-H Pledge

*I pledge my head to clearer thinking,
My heart to greater loyalty,
My hands to larger service,
and my health to better living,
for my club, my community, my country, and my world.*

This lesson focuses on the Head! We all have emotions, and how our emotions affect how we work together with others on our team.

Learning Objectives

By the end of the lesson, youth should be able to:

- Experience finding common ground with others
- Name their emotions

Supply List

- *Opening Questions (Optional Supplies)*
 - Emotion cards
- *Letting Your Head Rule Charades*
 - Emotion Bookmarks (one per youth)
 - Emotion Cards
- *Putting Together the Pieces*
 - Coloring puzzle page
 - Scissors
 - Coloring Supplies (markers, colored pencils, crayons, etc.)

Preparation

- Read the entire lesson and decide which activities will work best for your location and age group
- Preview book recommendations
- Gather supplies and prepare activities

Lesson overview

For more 4-H Reading
Connections Resources
check us out at:
<https://child.unl.edu/nebraska-4-h-stem-reading-connections-program>

Peer Reviewed

February 2023

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Continue the Learning

If you enjoyed this lesson on learning about yourself and others, you might consider checking out these 4-H projects: Seeing i2i, to expand your cultural knowledge.

- Seeing i2i – A130002 – How Are We Different? Interview
- Human Development (Kids On the Grow 2) – C200001 – Social Emotional Development

Resources

- [“Rock Paper Scissors Train” by Great Camp Games](#)
- [“Health Rocks! Inspired to be Substance Free” by Nebraska Extension](#)
- [“Finding Common Ground” by Drake University. Home of Character Counts!](#)



Do

Try a physical fitness activity prior to the lesson to encourage active engagement and listening!

Physical Activity 1: Ultimate Rock Paper Scissors

Directions

1. Start with the youth spread out in the area you have.
2. When you say GO, youth find a partner and play a game of Rock, Paper, Scissors.
3. The crushed player of the rock, paper, scissors match puts their hands on the shoulders of the player that won. They then follow them around to find another partner. The "following" players are then to encourage their "player."
4. The winning team of the rock, paper, scissors match mingles to find another partner to play with.
5. If they win, the crushed player/team will join the train behind the winner.
6. The game ends after the last two trains have played each other and one wins.

Note: If needed, call rounds so that no one isn't finding a partner the whole game. Example: Call Round 1 and once everyone has played their rock, paper, scissors match, call Round 2, then Round 3 and so on.



Listen

Choose a book to read and talk about its relationship to this year's theme. We recommend using one of the suggested books listed. Promoting literacy development enhances the engagement and hands on learning experience that 4-H provides.

Introduction

During this lesson, youth will learn how to identify their emotions. They will then learn how to find common ground with their team members. Finally, they will put the pieces (their emotions and finding common ground) together to complete the teamwork puzzle.

Opening Questions

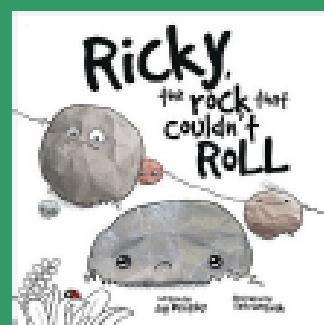
Supplies

- Emotion cards (optional)

Suggested Books

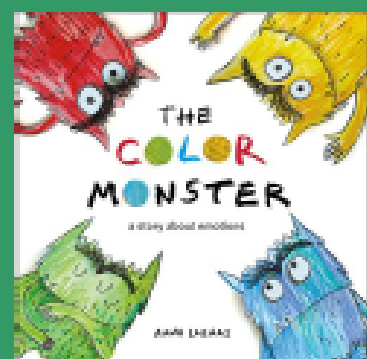
Ricky the Rock that Couldn't Roll

by Jay Miletsky



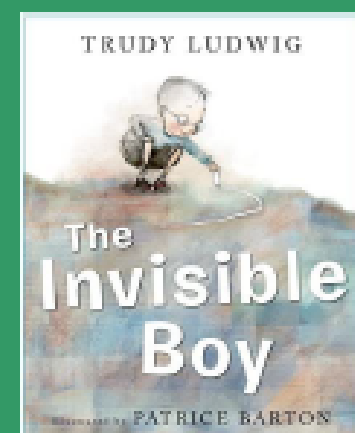
The Color Monster: A Story about Emotions

By Anna Llenas



The Invisible Boy

By Trudy Ludwig



Questions

1. How did you feel as you were playing the rock, paper, scissors activity?
2. Imagine that you didn't know anyone in this room right now, how might you feel?
 - o Ex. Scared, lonely, sad.
3. How might you appear/look to others as you have those feelings/emotions?
 - o Demonstrate what that might look like or show emotion card.
4. How would those feelings cause you to act?
 - o Maybe you'd be very shy, or maybe you'd have tears in your eyes.

Today we are going to learn how to identify our emotions and find similarities between ourselves and others. This will help us as we work together on teams.

Activity 1: Letting Your Head Rule Charades

Supplies

- Emotion Bookmarks (one per youth)
- Emotion Cards

Background

Can anyone describe how someone looks when they are happy? Sad? Angry? Etc.

- Knowing what the emotion you are feeling and being able to identify them will help you when you are working with others.
- If you can identify and name your emotions/feelings, you will be able to stop and think about how your emotions/feelings may be affecting your choices.
 - o Example: Someone brings me a present.
 - Emotions/feeling: excitement which causes me to scream and jump up and down.
 - o Example: My ice cream cone falls on the ground.
 - Emotion/Feeling: sad so I might cry.
 - o *NOTE* - Act out these emotions as you discuss, to collectively understand the emotions as a group.

Directions

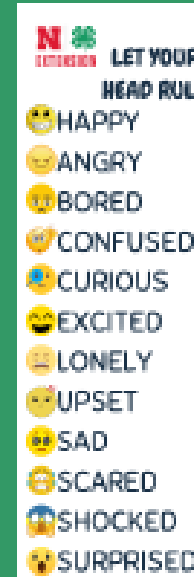
1. Pass out emotion's bookmarks.
2. Describe how youth might feel and or look when experiencing each emotion.
3. Have youth get into groups of 3-5.
4. One person from each group will draw an emotion card from the facilitators deck of emotions.
5. Have the youth that drew the card act out the emotion on it while the other students try to name that emotion.

Vocabulary Words

Common Ground:
Opinions or interest shared by each of two or more parties

Emotions:

A natural instinctive state of mind deriving from one's circumstances, mood, or relationships with others



6. Switch roles and repeat.
7. ****Could also be done in a large group, ask for volunteers who'd like to act out an emotion.**

Reflection

- Does everyone express emotions the same way?
- Could some emotions look like others?
- Why is it important for us to be able to know and name our emotions?

Activity 2: Finding Common Ground

Background

Youth will explore the benefits of finding common ground with others in their community. This lesson promotes good citizenship.

Directions

1. Identify an area to play this activity. Designate a spot close by to keep everyone together, where youth will go once they are "out".
2. On a signal, have everyone walk around and mingle saying, "mingle, mingle, mingle"—until the leader shouts a number.
3. When the number is announced, everyone must get into a group of people of that number. For example, if the leader says "3" then youth should be getting into groups of 3.
4. Anyone not in a group is "out". All members of any group having more or less than the specified number are "out".
5. After playing one round, the leader will call out a new number and add the following characteristics as the number is called:
6. People:
 - of the same age
 - in the same grade
 - who live in the same city
 - with the same shoe size
 - with the same eye color
 - who love to eat the same food
 - who like the same kind of ice cream
7. Keep playing until you get down to one or two youth and then do reflection questions.

Reflection

- Was it harder to find a group after you started grouping by things in addition to the numbers?
- Did you learn things you have in common?
- Did you feel more like you belonged when you learned about what you have in common with other students?
- How did it feel when you couldn't find something in common and were out of the game?

- Do you think it is possible to have nothing in common with someone?

Activity 3: Putting Together the Pieces

Supplies

- Coloring puzzle page
- Scissors
- Coloring Supplies (markers, colored pencils, crayons, etc.)

Background

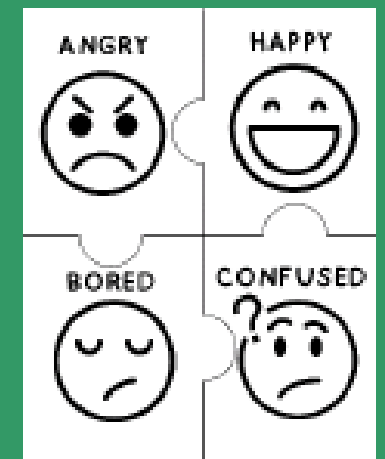
Students will see how their emotions have the ability to affect how they act.

Directions

1. Start by passing out the provided coloring pages.
2. Have youth cut out on the lines.
3. Have youth color their pieces with different emotions.
 - Angry
 - Happy
 - Bored
 - Confused
4. Have youth put puzzle back together.

Reflection

- What are some things you now notice about your puzzle coloring?
- Do the pieces look different than each other? Why is that?
- This puzzle reflects who we are as individuals. We always have emotions, and it is okay to feel our emotions, but the important thing is how we react with our feelings. As we can see, we all get angry, sad, happy etc. at times, but we can still make good choices when we feel these things.
- We all have emotions and feelings, and this represents us as individuals with all our different emotions in us. At different times we are going to feel differently just like our puzzle pieces show.







Reflect and Apply

- When working in a group, is it easier when you have something in common?
- What are some ways that you think your emotions are shown to those around you?
- Have there ever been times your emotions have changed the way you have acted?

Evaluation

Ask the following evaluation questions after each lesson and keep track of the responses using the tally chart. There are various ways you can collect this information. (i.e. 1. Give each youth 6 chips. Have 2 cups—one with a smiley face and one with frown. Each time you ask a question, have the youth place a chip in the cup that represents their answer. Count. 2. Print out a smiley face and a frown face and put them on opposite sides of the room. Ask the questions and have youth move to the face that represents their answer. Count. 3. Have youth respond by raising their hands. Count. 4. Utilize sticky notes. 5. Use the paper and pencil method.)

		
I like experimenting and testing ideas.		
I get excited about new discoveries.		
I want to learn more about 4-H.		
I would like to have a job related to STEM.		
I do STEM activities that are not for school.		



LET YOUR HEAD RULE

- 😊 HAPPY
- 😡 ANGRY
- 😞 BORED
- 😵 CONFUSED
- 👁️ CURIOUS
- 😄 EXCITED
- 😞 LONELY
- 😡 UPSET
- 😞 SAD
- 😱 SCARED
- 😱 SHOCKED
- 😲 SURPRISED

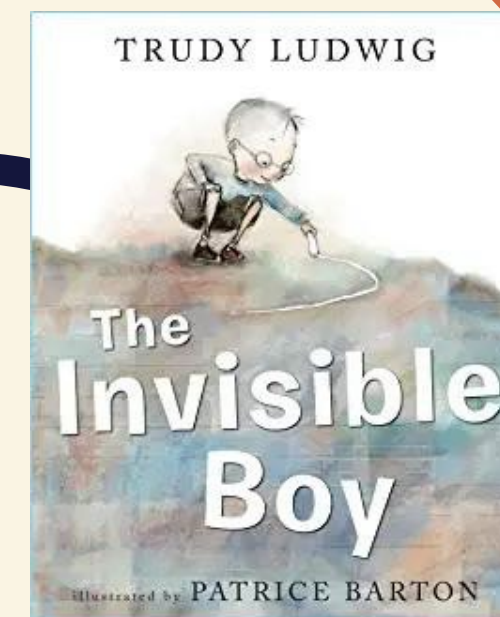
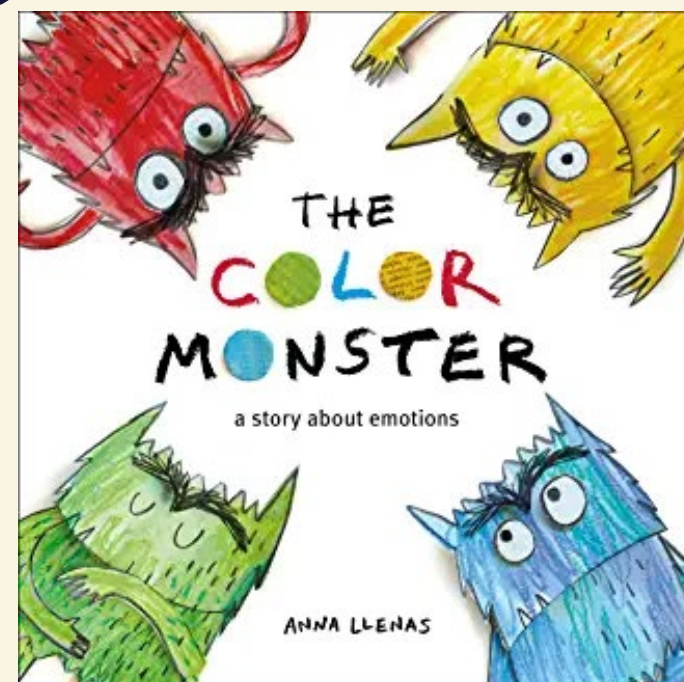
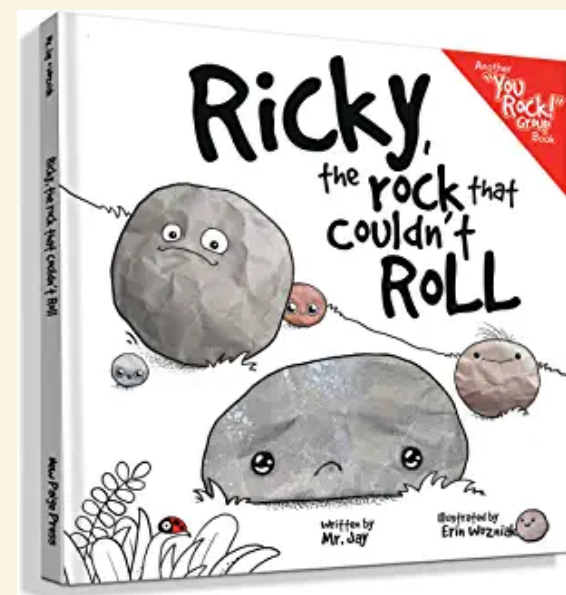
Suggested Books for 2023

Head Heading into This Together Lesson

o Ricky the Rock That Couldn't Roll by Jay Mletsky

o The Color Monster: A Story about Emotions by Anna Lenas

o The Invisible Boy by Trudy Ludwig

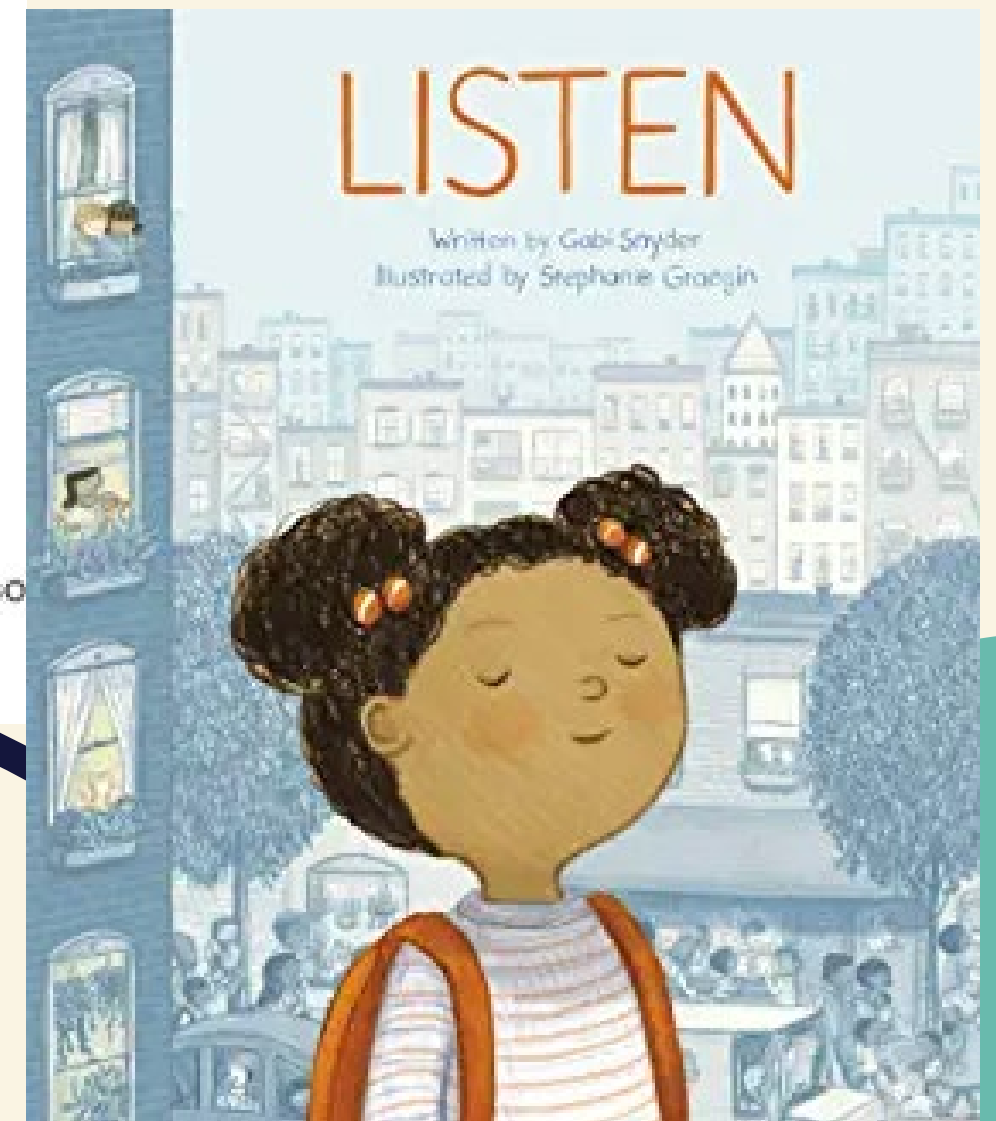
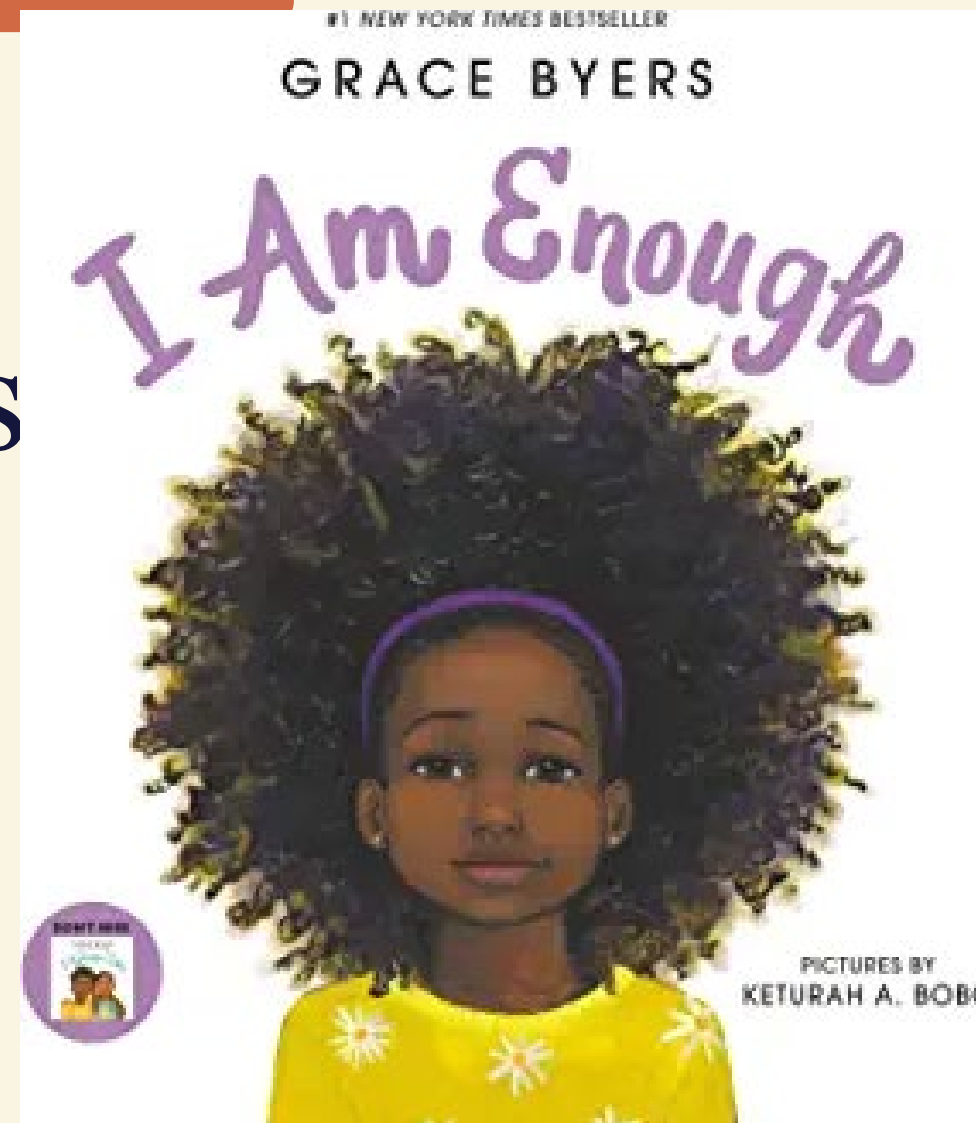


Suggested Books for 2023

Heart I Am Enough

o I Am Enough by Grace Byers

o Listen by Gabi Snyder



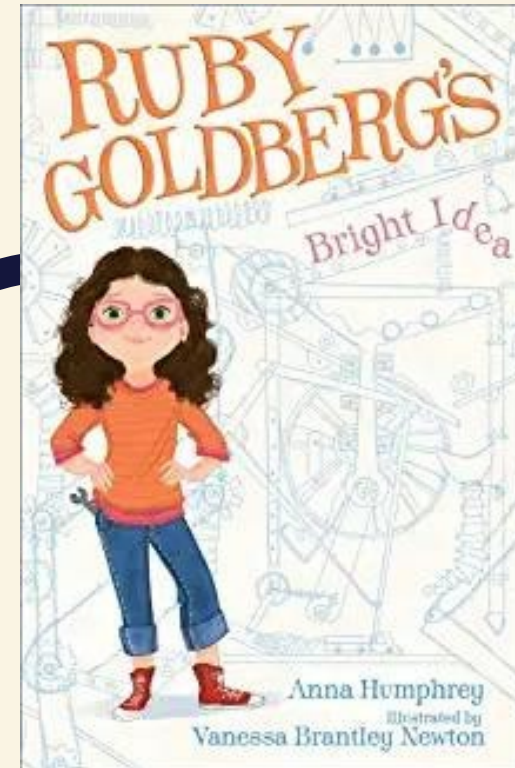
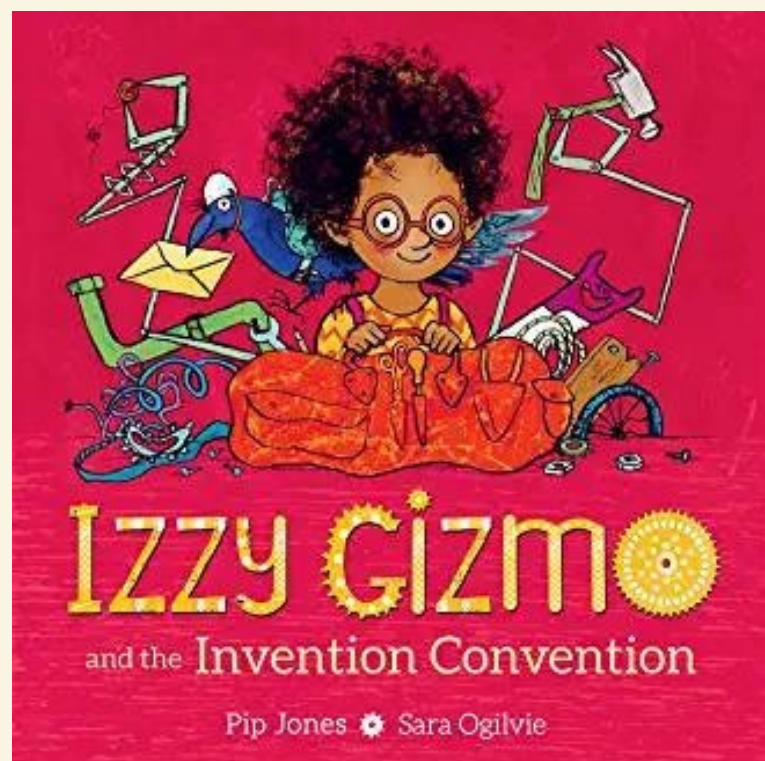
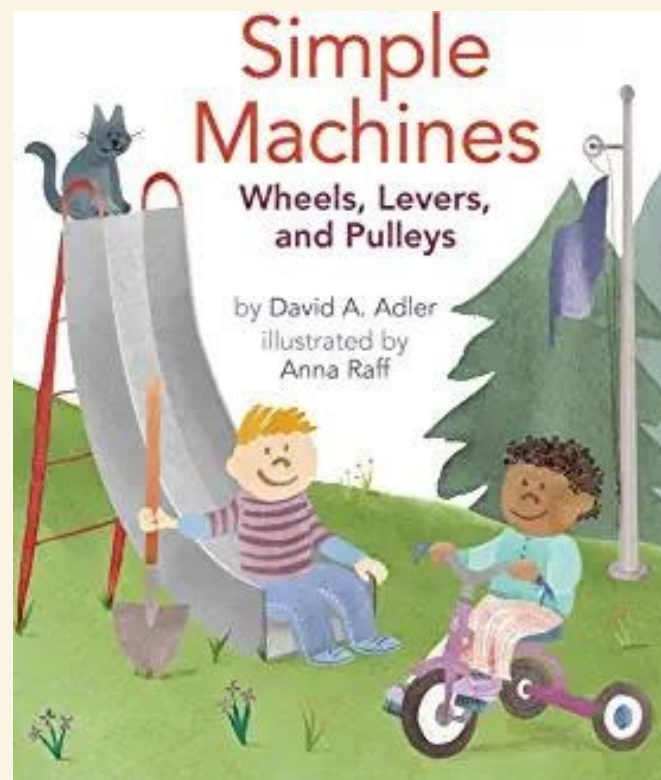
Suggested Books for 2023

HandsGunball Machine/ MarshmallowCat apult

o Simple Machines by David A Adler and Anna Raff

o Izzy Gizmo and the Invention Convention by Pip Jones

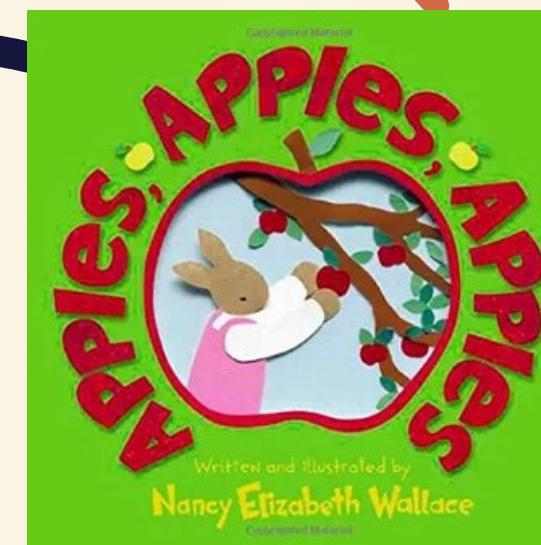
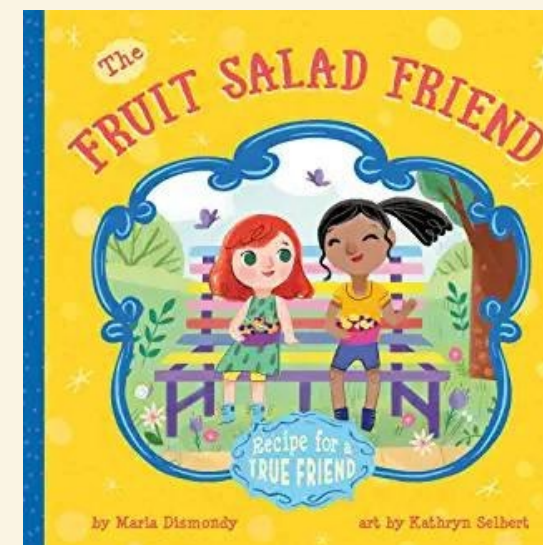
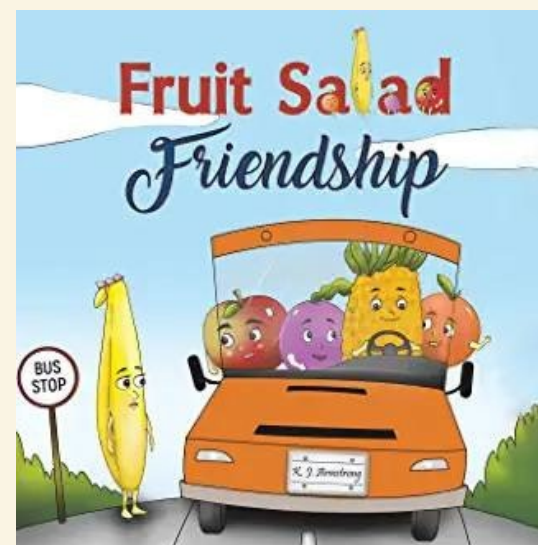
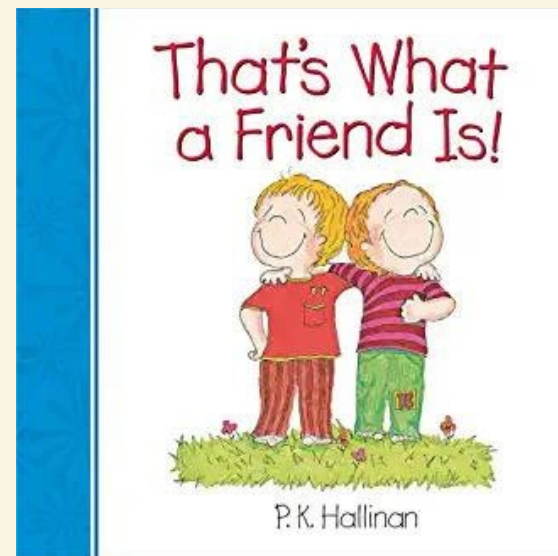
o Ruby Goldberg's Bright Idea by Anna Humphrey



Suggested Books for 2023

Health An Apple a Day

- o ‘That’s What a Friend is!’ By P.K.Hallinan,
- o ‘Fruit Salad Friendship’ By KI Armstrong
- o ‘The Fruit Salad Friend: Recipe for a True Friend’ By Maria Dismondy
- o ‘Apples, Apples, Apples’ By Nancy Elizabeth Wallace




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QR Code for website:
<https://child.unl.edu/nebraska-4-h-stem-reading-connections-program>



Questions?



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