

Language Arts

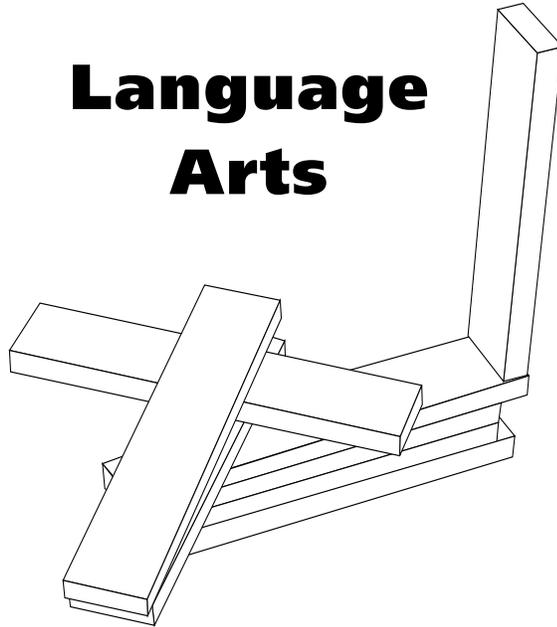


Table of Contents

FORWARD

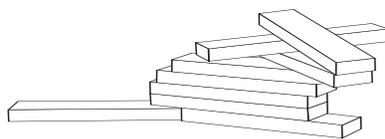
KEVA Planks are great for:
Basic Instructions for Building
Team Building and Incentives
For Young Children

MATH AND SCIENCE

- 1 Counting with KEVA
- 2 Number Recognition
- 3 Reasonable Guess of Magnitude
- 4 Adding with KEVA
- 5 Subtracting with KEVA
- 6 Comparing with KEVA
- 7 Estimating with KEVA
- 9 Graphing with KEVA
- 10 Measuring Perimeter with KEVA
- 11 Area (or KEVA²)
- 12 Volume (or KEVA³)
- 13 KEVA as a Non-Standard Unit of Measurement
- 14 Measuring with KEVA for Older Students
- 15 Geometric Shapes with KEVA
- 16 KEVA Polygons
- 17 KEVA Cantilevers
- 18 Why does the Earth Look Flat?

SOCIAL STUDIES

- 1 Build a Plantation
- 2 The Battle of Yorktown
- 3 KEVA Pyramids
- 4 Great wall of China
- 5 KEVA Geography
- 6 Jamestown Fort
- 7 KEVA Economics
- 8 Natural resources



ART

- 1 All Purpose Lesson Plan for Art
- 2 A KEVA Sculpture Garden
- 3 Form and Function
- 4 International Architecture
- 5 Moving from 2-D to 3-D
- 6 2-Dimensional Designs
- 7 Building 3-D Themed Sculptures
- 8 Minimalism
- 9 The Same, Yet Different
- 10 KEVA Art Games

LANGUAGE ARTS

- 1 KEVA ABC's
- 2 Following Directions with KEVA
- 4 Build a KEVA World
- 5 KEVA Settings, KEVA Characters, and KEVA Plots
- 7 KEVA News
- 8 Literature Links

Appendices

- A Addition Sheet
- B Subtraction Sheet
- C Estimating with KEVA
- D Graphing with KEVA Data Sheet
- E Graphing with KEVA Bar Graph
- F KEVA Yardstick
- G KEVA² Template
- H KEVA³ Template
- I Geometric Shapes
- J Cantilevers Data Sheet
- K Cantilevers Classroom Data Chart
- L Habitat Cards
- M Character Description
- N KEVA People



KEVA ABC's

OBJECTIVE: Students will reinforce their letter recognition by building the alphabet with KEVA Planks.

MATERIALS: 10 KEVA Planks per child, per letter

PROCEDURE:

1. This activity can be done as a large group or individually in a learning center.
2. Have the students construct each letter with KEVA Planks. Most will probably be done on the flat edge.

BUILDING EXTENSION: Have each student choose a letter and then build an object that begins with that letter. Possibilities might include: A: airplane, B: boat, C: cat or camel, D: dinosaur, E: elephant, F: fire engine, etc ...

LANGUAGE EXTENSION: Take pictures of each creation and make a KEVA alphabet book.



FOLLOWING DIRECTIONS WITH KEVA

OBJECTIVE: Students will follow directions as they build a variety of KEVA towers.

MATERIALS: 20 to 30 KEVA Planks per child

PROCEDURE:

1. This lesson is best done in short 10-minute segments over several days. Older children can do this lesson with the terms parallel and perpendicular, while younger children will need a visual cue and the words “in the same way” and “in the opposite way.” Have each student count out their planks and take it to their work area.
2. Demonstrate how to build with KEVA Planks on the flat side (*see Basic Building Skills*).
 - a. Tell the class to lay two planks flat, parallel to one another (or going in the same direction).
 - b. Next, have them lay two more planks flat on the top of the first two, but these should be perpendicular to the first row (or going in the opposite way).
 - c. For the third row lay two planks flat so that they are parallel to the first row (or going in the same direction).
 - d. Continue in this same pattern until you have used all of your planks. (Or you may choose an amount to stop with, such as 20 planks.)
 - e. Gently collapse your structure and return them to your container.
3. Demonstrate to the class how to build with KEVA Planks on the edge (*see Basic Building Skills*).
 - a. Tell the class to lay two planks on the edge so that they are parallel to one another (or going in the same direction).
 - b. Next have them lay two more planks on edge, on top of the first two. These should be perpendicular to the first row (or going in the opposite way).
 - c. For the third row lay two planks on edge so that they are parallel to the first row (or going in the same direction).
 - d. Continue in the same pattern until you have used all of your planks.
 - e. Gently collapse your structure and return them to your container.





- 4.** This time start with two planks flat, parallel to one another.
 - a.** For row #2 place two planks on edge that are perpendicular to the first row.
 - b.** Guide the class through several layers alternating rows laid flat with rows on edge. Then allow them to continue on their own.
- 5.** For this tower begin with two planks flat, parallel to each other.
 - a.** Row #2: two planks laid flat, perpendicular to row #1
 - b.** Row #3: two planks on edge, perpendicular to row #2
 - c.** Row #4: two planks on edge, perpendicular to row #3
 - d.** Guide the class through several layers of two flat rows then two edge rows. Then allow them to continue on their own.
- 6.** If students are able to build on the end, you may create more complicated combinations of directions. You may also use a triangle, hexagon or octagon as a base for older students, but more planks will be needed for each student.



BUILD A KEVA WORLD

OBJECTIVE: Students will work together as a group to create their own world.

MATERIALS: 100-200 KEVA Planks per child

PROCEDURE:

1. Tell the class that they will be creating their own world. (This lesson can be adapted to fit a lesson about a country, city, farm, village, island, etc.)
2. Ask the class to suggest what things you will need to fill your world. Be sure that items are listed for the following categories: Transportation, Dwellings, Businesses, Artwork, Natural Resources, Public Services.
3. When you are ready to begin building, have the students clear a large space on the floor. Have each child chose five KEVA planks. Each student should then take their planks and form one zigzag line through the center of the building space.
4. Tell the students that the space on one side of the zigzag line will be land and the other side will be water. Rivers can be added to extend the water into the land and islands can be built in the sea. Assign students to build on either side. Students can move to the opposite area after they have built one thing on the side they begin with.
5. Students can build whatever they desire or you can have them choose from a list of items which the class has brainstormed.
6. Students can build independently or in small groups. Allow the students to build for 45 to 60 minutes.
7. Call time and have all of the students step out and look at the world they have created.
8. Emphasize that by working together they have created a world of their own.

LANGUAGE EXTENSION: Have students write a paragraph about what they built and why it was important to the world. Have each student tell the class what they built and why it is important to the world.





KEVA SETTINGS, KEVA CHARACTERS and KEVA PLOTS

OBJECTIVE: Students will use KEVA Planks as a manipulative to explore setting, character and conflict.

MATERIALS: 100 KEVA Planks per child
Character Description sheet (*see Appendix M*)
KEVA People sheet (*see Appendix N*)

PROCEDURE:

Setting:

- 1.** Tell the class that over the next few days they will be using KEVA Planks to create a setting for a story that they will be writing as a class. Tell the class that the setting is the “where” and “when” of the story.
- 2.** Decide as a class on the type of setting you will create using brainstorming techniques. Think of a name for the place you will create. Consideration might include: exotic, familiar, historical, futuristic, big city, small town, farm or castle.
- 3.** Once you have determined the type of setting you will build, as a class make a list of the structures you will need to build. Allow the children to choose the structure they will build from the list and mark it off when they have completed the structure. The setting could be built in one hour-long building session or in several shorter sessions over several days.

WRITING EXTENSION: You may wish to have the students write a paragraph describing their setting. They could be advertising their setting in a travel brochure for an exotic location, writing a history text for a historical place or writing a newspaper article for a modern American setting.

(continued on next page)



Character:

1. Tell the class that they need to make some characters for their story. Again, brainstorm with the class the types of characters they will need. Be sure to include adults, children, men, women and animals. Several professions should also be represented.
2. Provide the children with construction paper and crayons or markers. Have them create people to inhabit the KEVA world they have created. (*see KEVA People handout in Appendix N*) The children could freely create their characters or, to insure variety, have them check off of a brainstorming list.
3. Once the characters are created have the students add them to their KEVA world.

WRITING EXTENSION: To reinforce the concept of character, have the students write a description of their character. Have them fill out the character description. (*see Character Description handout in Appendix M*) Older students could transfer this information to a descriptive paragraph.

Conflict:

1. Tell the class that a good story must have a plot. Explain that a plot is something that happens to a character in a story.
2. Discuss with the class examples of what could happen within your setting. Make a list, which might include the following: Someone could be rescued from a fire, a thief could rob a store, someone could be lost, an earthquake could occur, etc.

WRITING EXTENSION: Students can now write stories about their characters in the setting they have created. After the stories are written, students can read their stories to the class and place the characters in the appropriate places.



KEVA NEWS

OBJECTIVES: Students will create a town with KEVA Planks and write newspaper articles about events which occur in their town.

MATERIALS: 200 KEVA Planks per student
KEVA People handout (*see Appendix N*)

PROCEDURE:

1. Tell the class that they will be building a small town in their classroom.
2. Brainstorm with the class a list of buildings that they will need in their town.
3. Have the students build individually or in small groups. For a well-organized town, have students choose a building from the list. They can check each building off as it is built.
4. Once the town is finished, have the class use the “KEVA People” handout to create people for the town. Again you can brainstorm with the class a list of occupations for the town. Have students check off the occupations as they make each person and add it to their town.
5. Once the town is populated, the class is ready to create a town newspaper. Talk to students about possibilities for articles. *For example: Fireman Rescues Lady From Burning Apartment, Bank is Robbed In Broad Daylight, Young Boy Finds a Rare Coin, Doctors Save Lives With A New Operation, etc.*

LANGUAGE EXTENSION: Have students write the articles and design and print the newspaper for their new town.



LITERATURE LINKS

Children will enjoy using their imaginations and KEVA Planks to bring a book alive in your classroom. You can adapt this activity to fit any of your favorite books, or use some of the suggestions below.

LITERATURE LINKS FOR OLDER CHILDREN

Detectives in Togas by Winterfield

Students can build a Roman temple.

The Door in the Wall by de Angeli

Students can build the Lindsay Castle.

The Forgotten Door by Key

Build Jan's family's spaceship.

James and the Giant Peach by Dahl

Build a giant peach.

Little House in the Big Woods by Wilder

Students can build Laura's house in the woods.

My Father's Dragon by Gannett

Build an island, a dragon or a crocodile.

Redwall by Jacobs

Students can build the Redwall Abby.

Stuart Little by White

Have the students build the Wasp (Stuart's schooner).

21 Balloons by Du Bois

Build several of the international houses.

A Wrinkle in Time by L'Engle

Have students build the ordered world on the Red Planet.



LITERATURE LINKS FOR YOUNGER CHILDREN

Bam, Bam, Bam by Eve Merriam

Synopsis: A rhyming book with fanciful illustration tells how construction workers must destroy buildings in order to put up new ones.

KEVA Connection: Have the students construct buildings of all shapes and sizes. Then have them move a few feet away and use bean bags or foam balls to topple the buildings.

The Banshee Train by Odds Bodkin

Synopsis: A ghostly tale of a mysterious train that warns of a washed out trestle bridge.

KEVA Connection: Build the trestle bridge that spans Gore Canyon. Build an elevated track around your classroom.

Builder of the Moon by Tim Wynne-Jones

Synopsis: A young boy flies into space to rebuild the moon with his building blocks.

KEVA Connection: Have students rebuild the moon. Building round shapes with straight lines is a great design challenge. Point out illustrations in the book showing one way it could be done.

Note: a full moon is shown in the book but a half moon or a quarter moon could also be done.

Language Extension: Have students write thank-you notes from the moon to David.

City Street by Douglass Florian

Synopsis: A picture book which gives brief glimpses of life in a big city.

KEVA Connection: As a class, build a city. Plan the things you will need: buildings, parks and transportation. Assign groups to build each part.

Language Extension: Label your city. Have the students write the name of their building on an index card and prop it in front of their creation. Have each student tell the class about what they created and why it is important to the city.

The Dream House by Pirkko Vainio

Synopsis: Lucas builds his dream house on an island near the seashore, only to find he is lonely. In his boredom he adds room upon room to his house, creating a tower. The wind bends his tower making it a bridge to the shore and friends.

KEVA Connection: Recreate the shoreline and Lucas's house. Build a bridge to connect the shore to the island. Add some children. (See KEVA People handout, Appendix N)

Language Extension: Have students write short essays on the topics:

"I feel lonely when ..." "I would like to build a bridge to ..."





Hosni the Dreamer by Ehud Ben-Ezer

Synopsis: Hosni is a shepherd for a wealthy sheik. Hosni dreams of a far away city and is ridiculed for his fantasy. By listening to a wise proverb he is able to realize his dream.

KEVA Connection: Build the city in Hosni's dream with its walls, stairs and minarets.

Language Extension: Have students describe their "dream" place. What does it look like? Why is it special? Why is it different? How will you get there?

A House Is A House For Me by Mary Anne Hoberman

Synopsis: Countless items are depicted as "houses" for the items they contain. Social studies and science topics are dealt with in imaginative, witty poetry.

KEVA Connection: Choose a "house" from the book and build it.

Language Extension: Make a classroom list of more "houses" and their occupants. Write short poems about one or more of the new houses.

Look at the Moon by Mary Gardlick

Synopsis: A beautiful description of the whole Earth as the moonlight sweeps over it.

KEVA Connection: Choose a setting, animal, building or object that the moon sees and build it.

< or > Divide the class into groups to build a city, woods, ships at sea, a jungle, the arctic or other regions.

The Maid and the Mouse and the Odd Shaped House by Paul Zelinsky

Synopsis: A maid and a mouse build an odd little house which, with the help of clever illustrations, turns into a cat.

KEVA Connection: Have the students build their own odd-shaped houses. Emphasize unique building features — the odder the better.

Language Extension: Have the children pretend to be a real estate agent who will show you around their odd-shaped house. Have them write up a description of the house for the newspaper.

Mimi and the Dream House by Martin Waddell

Synopsis: Mimi, the mouse, decides to build a house. Her sisters and brothers design and build her fancy houses, but Mimi rejects them and builds a house suited for her, where everyone can visit.

KEVA Connection: Have students build a dream house for themselves. If time permits, have them make a drawing of their house before they build, as Mimi did.

Language Extension: Have students briefly describe their dream houses to the class telling what is special about their creation.



Mystery Mansion by Michael Garland

Synopsis: Tommy receives a mysterious note from his aunt, which sends him on a trip through her enchanted mansion in search of clues. The illustrations in the book contain clues which help the reader and Tommy solve the riddle.

KEVA Connection: Build Aunt Jean's mansion. Create some of the animals you see. Make a maze.

Language Extension: Have small groups make mazes using KEVA. Have them begin a scavenger hunt with the riddle in the center of the maze. One or two other stops in the scavenger hunt will provide plenty of movement in a classroom. Be sure the riddle for the next stop is found at the answer for the first riddle. Riddles can be as simple as "look beside the pencil sharpener." The answer can be as simple as "You found me."

Oh, the Places You'll Go by Dr. Seuss

Synopsis: A challenge to get up and go, with your imagination and determination as your only limits. Zany challenges and wacky encounters are all a reflection of real-life experiences.

KEVA Connection: Build your dream "place." Make it as exotic, zany and creative as you can.

Language Extension: Briefly describe the place you have built. What is it called? What does it look like? What can you do there? Read the descriptions aloud to the class and try to match the description to the creation.

People, People Everywhere by Nancy Van Laan

Synopsis: The hustle and bustle of city life is contrasted with the quiet countryside. Both are filled with people.

KEVA Connection: Divide the class into two groups. Have one group build a city and one group build a small town and farm.

Language Extension: Have each student write or tell about the place that they would rather live and why.

Rotten Island by William Steig

Synopsis: Rotten Island has rotten weather, and horrible, cranky creatures that love to hate one another. A flower blooms into this nastiness, sending the creatures into chaos.

KEVA Connection: Make a rotten island in your classroom. Form the perimeters of the island with a single flat row of planks. Add a KEVA Planks volcano and creatures. Plant a flower (paper cut out) in the middle and have a KEVA Planks battle by tossing beanbags or foam balls at your creatures.

Language Extension: Think of a name for the new island and write about who will come to live there.



Steel Beams and Iron Men by Mike Cherry

Synopsis: A personal look at the job of constructing skyscrapers and bridges. Lots of new vocabulary as you learn about gofers, pushers and spud wrenches. A first-person account of the courage required to work far above the ground.

KEVA Connection: Build skyscrapers from KEVA Planks.

Math Extension: Calculate the ratio of the height of your building to that of an actual skyscraper.

Zoo-Looking by Mem Fox

Synopsis: Flora visits the zoo with her dad and sees many animals doing interesting things. The book is illustrated in collage.

KEVA Connection: Make a classroom zoo with KEVA Planks. Invite guests to visit your zoo.

CHARACTER DESCRIPTION

Character Name: _____ Age: _____

Occupation: _____

Interests/Hobbies: _____

Family: _____

Write three to five sentences to introduce and describe your character:

Keva People

Use the outlines to create characters for your story. Then cut them out and place them inside the KEVA world the class has created.

