

Preservice Elementary Teachers Increase Descriptive Science Vocabulary by Making Descriptive Adjective Object Boxes

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Quest Conference Presenters:

Kelly Knoop, Megan McDonnell, Katharine Meyer, Cristina Valle, Jim Van Arsdale, and
Audrey C. Rule

Authors:

Audrey C. Rule, Sherry Crisafulli, Heather DeCare, Tonya DeLeo, Keri Eastman, Liz Farrell, Jennifer Geblein, Chelsea Gioia, Ashley Joyce, Kali Killian, Kelly Knoop, Alison LaRocca, Katie Meyer, Julianne Miller, Vicki Roth, Julie Throo, Jim Van Arsdale, and Malissa Walker

Abstract

Descriptive vocabulary is needed for communication and mental processing of science observations. Elementary preservice teachers in a science methods class at a mid-sized public college in central New York State increased their descriptive vocabularies through a course assignment of making a descriptive adjective object box. This teaching material consists of a set of theme-related objects with corresponding cards housed in a box. The front of each card lists four descriptive adjectives that describe physical observations of one of the objects, with an image of the object on the reverse for self-checking. The student reads these descriptive words and attempts to locate the one object to which they all refer. Preservice teachers (N = 67; 8M, 59F; 3H, 2B, 1A, 61W) took identical pretests/posttests in which they wrote descriptive adjectives for four objects. During the intervention, they explored example boxes with activities and worked in pairs to create their own sets of materials. Participants increased words generated from 17.8 to 25.7 for the four objects. The grade level of words produced also increased from 2.9 to 3.8. Both increases were statistically significant with a very large effect size (1.84) for words generated and a medium effect size (0.35) for increase in grade level of vocabulary.

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Introduction

Importance of Descriptive Vocabulary in Science

Observation is the most primary of all science process skills because we acquire information about the world through our five senses. Vocabulary is important to the learning of science because we think in words: our observations cannot be mentally processed or communicated without descriptive vocabulary (Vygotsky, 1989).

Vocabulary is also important in reading science texts and articles. Groves (1995) replicated Yager's (1983) study of science vocabulary in science textbooks with similar results indicating a focus on terminology in science that surpasses foreign language courses. Groves concluded that vocabulary must be used as a means of guiding students towards the attainment of science concepts.

Literature Review

Vocabulary is an essential part of understanding concepts in content areas, including science. Without a clear understanding of the meaning of new terms (e.g., "opaque," "iridescent," "impermeable") students will experience difficulty and their interest in the subject will wane (Young, 2005). Science instructors must therefore find effective ways to teach vocabulary (Blachowicz & Fisher, 2002).

Gunning (1998) advises science teachers to use new vocabulary words in context, establish relationships between words and provide opportunities for multiple exposure and usage of new words. Frystak (1999) encourages science teachers to find

engaging ways of presenting new vocabulary beyond writing definitions. Frystak suggests investigating root words, writing original sentences in context, and drawing illustrations. Young (2005) recommended visualizing the meanings of new words as sketches drawn inside a TV with synonyms and antonyms included. Words may also be semantically mapped to other words, and students are encouraged to develop a set of personal clue cards with simple definitions and associations marked on them. Young suggested that students rate vocabulary words on their level of understanding of them to help develop metacognitive abilities.

Descriptive adjective object boxes (Rule, 1999) may be used to increase students' descriptive vocabularies (Rule, Barrera, & Stewart, 2004). A descriptive adjective object box is a set of teaching materials that consists of ten to twelve objects, each with a corresponding card, housed in a box (often a plastic shoebox). The front of a card lists four adjectives describing physical properties that may be applied together to only one of the objects in the box. The student reads the adjectives and determines the corresponding objects, learning new vocabulary words along the way. Work can be self-checked when the student examines the image of the correct object on the back side of the card.

Such descriptive adjective object boxes can be integrated into science lessons on various topics, such as the lesson on driftwood characteristics described by Rule, Young, and Fox (2003) or bird adaptations for habitat (Rule & Barrera, in review).

Descriptive adjective object boxes are an effective means of increasing student vocabulary because the hands-on nature of examining a variety of objects motivates learners and provides concrete examples of the new descriptive terms in context. When students work with a variety of descriptive

adjective object boxes, they are exposed to new examples of the vocabulary words multiple times. Teachers can reinforce this learning by discussing important new terms and their relationships, such as terms related to diaphaneity (e.g., opaque, translucent, transparent) or luster (e.g. vitreous, dull, pearly). Additionally, in this study, preservice teachers crafted their own descriptive adjective object boxes and therefore engaged in much consideration of possible words and practice with new terms.

In this study, we examine how activities centered on descriptive adjective object boxes, including making a new descriptive adjective object box with a partner, helped preservice elementary teachers improve their descriptive vocabularies.

Method

Participants

Sixty-seven elementary preservice teachers (8M, 59F; 3H, 2B, 1A, 61W) who were sophomores or juniors enrolled in a science methods class taught by one instructor (the first author) at a mid-sized public college in central New York State participated in the study.

Pretest/Posttest

On one of the first days of the semester, preservice teachers took the pretest in which they were supplied four items and asked to list as many adjectives describing observations of physical properties of the four items as possible. The four items were a wooden spindle, a green s-shaped Styrofoam pellet, a small gold-colored jingle bell, and a spherical multi-colored hollow plastic ornament. The objects are shown in Figure 1.

The descriptive adjectives listed by each participant were recorded on a spreadsheet for easy sorting and manipulation. Seven weeks later, after the

intervention was complete, participants again took an identical posttest and results were recorded on a spreadsheet for analysis. A similar pretest/posttest was used in the study of third graders increasing their descriptive vocabularies by Rule, Barrera, and Stewart (2004).

Figure 1. Objects used for the pretest and posttest.



Intervention

During the intervention, participants worked in class for approximately three 80-minute sessions, exploring twelve descriptive adjective object boxes created by the instructor. Participants addressed the following while examining these sets of materials.

1. Discussion of how choice of theme for a set of materials can form a bridge between science and other content areas, for example, the theme may fit with children's literature or the box may center on items from a historic period, culture, or geographic place.
2. How to choose safe (nothing sharp, dangerous, or toxic), appropriate (no tobacco, alcohol, sexual, violent-themed, or gambling-related), attractive (clean, durable, interesting) items that show a wide range of physical characteristics.
3. Categories of descriptive adjectives for possible use: color (maroon, beige,

chartreuse), shade (pastel, dark, pale), degree of transparency (opaque, translucent), luster (iridescent, pearly, vitreous), geometric pattern (checked, dotted, striped) irregular pattern (mottled, freckled, marbled), texture (embossed, velvety, corrugated), regular geometric shape (cylindrical, rectangular, faceted), other shape (bulbous, oblong, flat), number (double, whole, three-pointed), construction (hollow, woven, perforated), condition (truncated, chipped, cracked), angularity (jagged, sharp, blocky), curvature (arched, rippled, concave), arrangement (intersecting, branching, crosshatched), other line and surface (serrated, grooved, fluted), composition (wooden plastic, glass), tenacity (spongy, tough, elastic), porosity (impermeable, porous, solid), and sound (hissing, silent, jingling).

4. Descriptive adjective object box activities:

Matching objects to images on the backs of cards. Images may be photographs, outlines, silhouettes, or drawings.

Identifying and naming the objects in the box.

Using the process of elimination to determine the corresponding object. Choose a card and read the first descriptive adjective. Find all the objects in the box with this characteristic. Then read the second descriptive adjective and eliminate all those from the first group that do not match this description. Continue until only one object is left. Read all the adjectives again and verify that they fit the chosen object.

Attempting to pair each of the cards with its corresponding object by reading and applying the descriptive adjective clues, one by one.

Playing “I Spy” or “I’m thinking of...” Remove all of the objects from the box. Put away the cards for this activity. Think of a descriptive adjective that applies

to several of the objects. Say, “I spy an object that is ____.” Have others guess the object. If a guess is incorrect, add another descriptive adjective clue until the correct object is located.

Creating a chart to compare and contrast two objects. Choose two objects from the box. Use a chart to compare how they are similar (comparison) and different (contrast). Be sure to list the general category for each physical observation. An example chart is shown in Table 1.

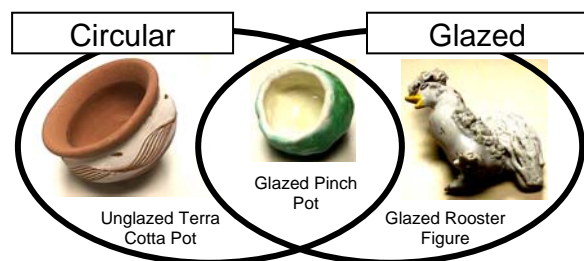
Generating descriptive adjective observations. Choose one object from the box. Write as many descriptive adjective observations of the object as possible. Read the list to classmates and challenge them to add to the list.

Table 1. Example chart of comparison and contrast of two objects.

General Category		First Object New Penny	Second Object Red Plastic Pushpin
How the two objects are alike = Comparison	Size	Both fit inside the palm of one’s hand; both are less than 3 centimeters in any direction	
	Cross-sectional Shape	Both are circular; both have a circular cross-section	
	Luster	Both have a glossy surface	
	Composition	Both contain metal	
How the two objects are different = Contrast	Angularity	The penny is round and smooth	The pushpin has a sharp, pointy tack
	Decoration	The penny has embossed bust of Lincoln and writing	The pushpin is plain
	Dimensionality	The penny is flat and almost two-dimensional	The pushpin is cylindrical and three-dimensional
	Color	The penny is pinkish brown	The pushpin is bright red

Using a Venn diagram to explain similarities and differences between objects. Create a simple Venn diagram of two intersecting rings. Label each of the rings with a physical observation. Find three objects that can be placed on the diagram, one in each part.

Figure 2 Example Venn diagram



Writing a cinquain poem about an object. A cinquain poem is a structured poem with 5 lines. The first line consists of a single word, a noun, the object. The second line contains two descriptive adjectives. The third line is composed of three –ing gerunds that describe the object. The fourth line is a four-word phrase that tells the main message of the poem, while the fifth and final line is again a noun, a new word for the object. Figure 3 shows an object from a descriptive adjective object box focused on caterpillars that is the subject of the following cinquain poems.

Cat-toy,
Knitted, colorful,
Jingling, flinging, ripping,
Help! I have feelings.
Critter.

Caterpillar,
Bright, spongy,
Springing, eye-rattling, end-ringing,
Sensual and grabs attention.
Pet-toy.

Figure 3. Cinquain poem object.



After completing the exercises described above, preservice teachers worked together to create descriptive adjective object boxes of their own. The following instructions were given to preservice teachers, working in pairs. “Make a box of ten related objects that display a variety of physical attributes. Each object will have a corresponding card of four descriptive words, making a total of 40 different words on the cards. The reverse side of each card will identify the object to which the descriptive words refer, showing an image of the object. About half of the words will be familiar words, the other half will be new descriptive vocabulary terms that relate to the physical characteristics of the objects.”

A scoring rubric was supplied to the participants. It is shown in Table 2.

Results and Analysis

Word Generation Fluency Increase

On the pretest, students wrote a mean of 17.8 (s. d. = 4.1) different descriptive adjective words per person for the set of four objects; on the posttest, students increased the mean number of words written per person to 25.7 (s. d. = 4.5) different words for the set of four items. This improvement on the posttest was statistically significant ($\alpha = .05$, $F_{critical} = 3.9$, $F = 84.5$, $df = 1/132$, $p < 0.001$), indicating the efficacy of the activities in

Table 2. Rubric for scoring descriptive adjective object boxes.

Criteria	Yes	Partly	No
The items are housed in a plastic shoebox or similar box with both ends of the box labeled with the theme topic, "Descriptive Adjectives," and the makers' names. The label should be word-processed or <i>very neatly</i> written and should be on a stick-on label or piece of paper that is covered by wide clear tape. Sloppy labels are not acceptable.	1	½	0
Ten objects are present and each object has a corresponding card.	1	½	0
The printing on the cards is word-processed. The cards are neat and durable. They are either laminated (no construction paper) or made of mat board (not poster board).	1	½	0
The objects are all related to a theme and include interesting/ unusual objects.	1	½	0
The objects show a wide variety of physical characteristics and appropriate vocabulary (some familiar, some challenging) has been used.	1	½	0
The objects are attractive, safe, durable, and in good condition (unless the attributes specifically require damage such as "cracked," "weathered," "pierced."	1	½	0
All adjectives represent observations of physical properties observable with one of the five senses. No inferences or subjective judgments.	2	1	0
At least three senses (three of these: sight, tactile texture, sound, smell) are used in the descriptive adjectives for the set. Taste is not used for safety/sanitation reasons.	1	½	0
Images (drawings, silhouettes, photographs) of the objects are shown on the reverse of each card with the name of the object given.	1	½	0
More than two spelling or grammar errors are present.	-1	0	0
Assignment is turned in on time.	0	0	-1
TOTAL out of 10 Possible Points			

increasing productive descriptive vocabulary. Cohen's effect size, d , (1988), using pooled standard deviations as suggested by Rosnow and Rosenthal (1996) of pretest compared to posttest performance was 1.84, a very large effect size indicating that less than one quarter of the two sets of scores overlap.

Improvement in Grade Level of Vocabulary

The grade level of reading vocabulary was determined for each descriptive word supplied by participants on the pretest and posttest using the EDL core vocabularies in reading, mathematics, science, and social studies (Taylor et. al, 1979). Some words were not listed in this reference and so adjustments were made. If the word from the study contained a root word that was listed, then the grade level of the root word was used (e.g., for "ridged" the root word "ridge" was used). A few other words did not have root words listed and these were assigned a grade level of 12 (e.g., dowel-like, gouged, lathe-turned, opalescent). Additionally, the "Primer" level was assigned a grade level value of 0.5. Table 2 shows data related to grade levels of words for the pretest and posttest. The mean vocabulary grade level of words generated by participants on the pretest was 2.9 (s. d. = 2.2), meaning that the vocabulary level of these words approached the reading vocabulary of a student at the end of second grade. The mean vocabulary grade level of words on the posttest was 3.8 (s. d. = 2.8), almost an entire grade level higher. Because these are *reading* or *recognition* levels for words and not the actual grade levels for *production* of words, the levels of performance were actually higher. An analysis of variance indicated that the difference between pretest and posttest grade levels of words was statistically significant ($\alpha = .05$, $F_{critical} = 3.8$, $F = 84.7$, $df = 1/2913$, $p < 0.001$). Cohen's effect

size, d , of pretest compared to posttest performance was 0.35, a medium effect size indicating that about three quarters of the two sets of scores overlap.

Table 2. Grade levels of words generated during the pretest and posttest.

Grade Level	Number of Words Generated	
	Pretest	Posttest
Primer (0.5)	44	54
1	233	198
2	380	413
3	263	431
4	75	142
5	49	111
6	76	130
7	17	45
8	13	46
9	10	28
10	12	43
11	3	26
12	17	52
Total Words	1192	1719

Table 3 shows the most common vocabulary words used to describe the set of four objects, arranged according to frequency of occurrence on the pretest.

Of particular interest is the increase in the use of higher grade level words such as “iridescent,” “multi-colored,” “symmetrical,” and “porous.”

Table 4 shows words occurring less commonly on the pretest (zero to four occurrences), but more commonly on the posttest, with at least five occurrences on the posttest. Note the increase in words of higher grade levels such as “translucent,” “opaque,” “spherical,” “crinkled,” “transparent,” “mobile,” “elongate,” “textured,” and “flexible.”

Table 3. Most common descriptive words

Word	Grade Level	Pretest Frequency	Posttest Frequency
round	2	59	43
shiny	2	58	58
smooth	3	56	56
hard	1	45	36
long	1	45	39
noisy	1	43	42
wood	2	42	51
soft	2	38	26
squishy	3	38	51
green	0.5	37	49
small	2	37	28
s-shaped	3	35	39
light	1	34	30
colorful	1	33	18
gold	2	32	35
reflective	5	26	40
hollow	3	22	51
plastic	6	21	37
curvy	4	20	14
metal	3	19	27
brown	1	18	15
bumpy	6	18	14
skinny	3	17	11
rolling	2	16	26
lightweight	3	15	18
metallic	3	15	31
bright	2	13	8
iridescent	12	13	32
circular	6	12	24
multi-colored	8	12	30
solid	5	12	23
tan	4	12	10
curved	4	11	18
golden	2	11	13
rough	4	11	5
thin	3	11	23
breakable	2	10	23
symmetrical	10	10	23
light green	1	10	5

Table 3 Continued.

Word	Grade Level	Pretest Frequency	Posttest Frequency
bouncing	2	9	8
jingling	4	9	12
see-through	2	9	6
fragile	7	8	10
grooved	7	8	10
ringing	2	8	10
crunchy	6	7	4
grainy	3	7	14
porous	9	7	16
bendable	3	6	14
blue	0.5	6	5
dull	4	6	26
spongy	6	6	5
squeaky	3	6	13
holey	2	5	15
loud	2	5	5
rigid	6	5	10
shimmery	5	5	3
wavy	2	5	5

Table 5 shows words that occurred one to four times on the posttest, but not on the pretest. Many of these words are of higher grade levels such as “asymmetric,” “concave,” “dowel-like,” “gouged,” “holographic,” “lathe-turned,” “lustrous,” “malleable,” “opalescent,” “squiggly,” “striated,” “turquoise,” “upright,” and “wispy.”

Descriptive Adjective Object Boxes

Preservice teacher descriptive adjective object boxes were, in general, well made with appropriate choices of objects and adjectives. Nine example object boxes made by preservice teachers are shown in Appendix 1.

Relationship of Results to Other Studies

The positive results of this study are mirrored by the increase in third graders’ descriptive vocabularies in a study by Rule,

Table 4. Words that occurred with low frequency on the pretest and greater frequency on the posttest.

Word	Grade Level	Pretest Frequency	Posttest Frequency
translucent	11	3	23
hang-able	3	1	14
foamy	5	2	13
pearly	4	0	12
cracked	3	4	11
carved	3	3	10
decorated	4	2	10
opaque	10	0	10
spherical	7	1	10
crinkled	12	2	9
open	2	2	9
rounded	2	3	9
transparent	6	0	9
x-shaped	3	1	9
mobile	7	0	8
patterned	4	2	8
tiny	2	4	8
detailed	5	0	7
elongate	10	1	7
indented	6	0	7
rainbow-colored	1	3	7
scratched	3	1	7
textured	9	2	7
slotted	6	2	6
airy	2	2	5
dented	5	1	5
flexible	8	1	5
four-pieced	2	0	5
n-inched	3	0	5
ridged	4	1	5
self-standing	4	0	5

Barrera, and Stewart (2004) and by other third graders studying bird adaptations in a study by Rule and Barrera (in review). In the latter study, three different approaches to technology and thinking skill integration in science were compared; students who used descriptive adjective object boxes had the largest vocabulary gains.

Table 5. Words appearing on the posttest one to four times but not on the pretest.

abnormal	gaping	notched	squiggly
absorbent	gleaming	one-holed	sticky
aged	glittery	marked	stretchy
asymmetric	globe-like	miniature	striated
attachable	gold-yellow	mint-green	striped
chipped	gouged	molded	thin-walled
clinking	hidden	multi-material	severed
cold	high-pitched	opalescent	shatter-able
color-changing	holographic	ornamental	silky
compressible	identical	pack-able	slashed
concave	imported	painted	sleigh-shaped
cool-shaded	imprinted	palm-fitting	thread-able
copper	intersecting	pastel	three-D
cratered	irregular	pencil-length	"thunk"-ing
creaking	knobby	petite	top-heavy
creased	knotted	pitted	touchable
crisscrossed	lathe-turned	plastic-topped	transportable
crooked	layered	plugged	turquoise
crossed	lettered	polished	two-ended
crumbly	light-reflecting	punctured	two-pieced
c-shaped	linear	purplish	two-toned
curvaceous	looped	quartered	unbending
dimpled	luminous	rattling	unbreakable
dipping	lustrous	ribbed	unfinished
dirty	malleable	rippable	unflawed
dotted	manufactured	rippling	unproportioned
dowel-like	multi-toned	rocking	unswallowable
dry	musty	round-edged	upright
empty	neutral-colored	rusted, rusty	weightless
enclosed	noise-making	seafoam green	white
equi-proportioned	non-flexible	seamed	wispy
extended	non-porous	slender	worn
feather-weight	non-rigid	slim	wounded
film-covered	non-squeezable	spotted	yellowish
flattened	not coarse	squeezable	

Conclusion

Preservice Teacher Reactions

Preservice teachers enjoyed exploring the descriptive adjective object boxes supplied by the instructor. This was evidenced by much excited conversation and positive comments made during the activities. They also enjoyed making their own descriptive adjective boxes. Many spent a lot of time finding a diverse set of appealing objects related to a chosen theme. Several preservice teachers remarked to the instructor that next term's class should make these same object boxes individually so that they would have a complete box to keep.

Implications of Findings

The activities described here helped preservice teachers increase both the number of descriptive adjective words readily available for use and the grade level of those words. The activities supported the foundational science process skills of observation of physical properties of objects, communication using descriptive vocabulary along with charts, Venn diagrams, and poetry, and classification skills in using charts and Venn diagrams. Preservice teachers' vocabularies also were increased through inquiry into making their own sets of materials rather than through a tedious and non-applied process of studying vocabulary words.

Creating descriptive adjective object box and exploring them through activities is an engaging, motivating way to increase preservice teachers' descriptive vocabularies for science. Therefore, we recommend that these activities be used in science methods courses to improve preservice teacher vocabulary and process skill development.

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Appendix

BLUE ITEMS

Heather DeCare & Vicki Roth

Candle



Scented
Waxy
Patterned
Flammable

Staple Remover



Translucent
Plastic
Graspable
Elongate

Phone Rattle



Noisy
Symmetric
Smooth
Glossy



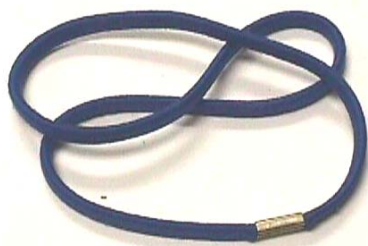
Arm Band

Fuzzy
Embroidered
Soft
Pastel



Bracelet

Sparkly
Layered
Inflexible
Rigid



Headband

Stretchy
Long
Dark
Sinuous

Paper Clip



Bendable
Partly-metal
Looping
Small



Glass Bead

Hard
Reflective
Odd-shaped
Glassy

Gripping
Plaid
Spring-loaded



Hair Claw



Paper Stick-on Note

Flat
Sticky
Rip-able
Dull

DOGS

Alison LaRocca & Sherry Crisafulli

Statue



Silvery
Metallic
Oval-based
Glued

Brown
Dog



Noisy
Symmetric
Smooth
Glossy

Pencil Holder



Four-holed
Rosy-nosed
Bobble-
headed



Vibrating
Rattling
String-legged
Patterned

Two-pieced
Clothed
Painted
Oval



Refrigerato
r Magnet

Grooved
Neutral-
colored
Magnetic



Dog Slipper

Powder-blue
Soft
Shaggy
Open

Shower
Curtain
Hook

Spotted
Outlined
Shiny
Partly-metal



Jewel Box

Three-
dimensional
Multicolored
Smooth
Adhesive



Pop-up
Stickers



Stuffed Dog

Furry
Plush
Glossy-eyed
Mirror-

FISH

Chelsea Gioia & Kelly Knoop

Rubber Bath Toy Fish



Squeaking
Bright
Hollow
Spotted

Cellophane-stuffed Fabric Fish



Crinkling
Multi-colored
Stitches
Stuffed



Shaggy Plush Fish

Fuzzy
Metallic-dotted
Round



Resin Reef

Sparkly
Rigid
Multiple
Dimpled



Clown Fish

Striped
Flat-bottomed
Bumpy



Suction-cupped Fish

Suction-cupped
Shimmering
Scaly



Small Resin Fish

Hard
Yellow
Bulging-eyed
Painted



Fish Appliqué

Thin
Embroidered
Shiny
Jeweled



Large Plush Fish

Curved
Smiling
Furry
Plush



Elastic Fish Skeleton

Stretchy
Flat
Ribbed
Blue

DUCKS

Tonya DeLeo & Ashley Joyce

Stuffed
Mallard Duck



Quacking
Velvety
Colorful
Three-

Pink
Floating
Duck



Pearly
Squeaky
Pastel
Polished

Sailor
Duck



Wide-eyed
Spongy
Clothed
Bendable



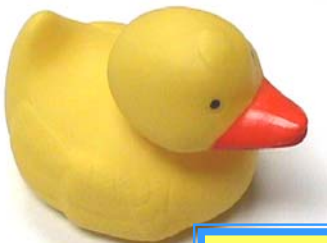
Rubber Duck
Stamp

Wooden
Embossed
Blocky
Textured

Beribboned
Feather-
weight
Felt



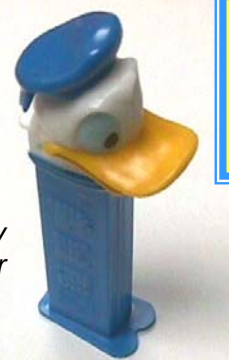
Soft Bean
Bag Duck



Bath Time
Rubber
Ducky

Rubber
Light
Hollow
Squeaking

Candy
Dispenser



Cerulean
Springy
Plastic
Vertical



Duck with
Heart
Necklace

Miniature
Dull
Ridged
Two-tone

Fragile
Engraved
Painted
Bumpy



Resin Duck Figure



Bean Bag Duck

Shaggy
Yarn-
covered
Symmetrical

MAGNETS

Jennifer Geblein & Katie Meyer



Framed Handprint

Lightweight
Rectangular
Decorated
Wooden



Swiss Cheese

Waxy
Triangular
Pitted
Slick



Palm Tree

Plain
Flexible
Silhouetted
Pointy



Horse Head

Opaque
Dense
Sepia-colored



Letter A

Projecting
Lustrous
Outlined
Bright



Football

Miniature
Mirror-symmetric
Striped



Blue Disk

Circular
Translucent
Embossed
Tinted



Jingle Bell

Jingling
Gleaming
Durable
Metallic



Advertisement

Printed
Multi-colored
Photographic
Flat



Photograph

Enclosing
Palm-sized
Transparent
Smooth

HARVEST TIME

Jim Van Arsdale

Raspberries



Clustered
Stemmed
Burgundy
Rough-

Grapes



Leafy
Amethyst
Shimmering
Sugared

Pumpkin



Ridged
Orange
Flecked
Imperfect



Onions

Long
Bunched
Spear-like
Branching



Corn

Multi-colored
Bumpy
Papery
Mildewed



Beet

Chartreuse
Oval
Extending
Ruby-colored



Mushrooms

Domed
Beige
Smooth
Hollow



Peas

Miniature
Dull
Ridged
Two-tone



Gourd

Odd-shaped
Veined
Plastic
Curved



Apple

Solid
Wood-
grained
Flat-topped

FRUITS

Malissa Walker & Julie Throo

Gourd



Sparkling
Ringlet-
topped
Rough

Grapes



Purple
Rubbery
Frosted
Slippery



Peach

Fuzzy
Indented
Rigid
Asymmetric



Pumpkin

Mesh
Round
Squishy
Orange



Tomato

Smooth
Red
Glassy
Spherical

Watermelon
Card



Flat
Printed
Thin
Multicolored



Charm
Bracelet

Linked
Metallic
Dangling
Jeweled



Banana

Arched
Linear
Vitreous
Heavy



Lemon Dish
Scrubber

Porous
Oval
Green-leafed
Spongy



Strawberry Candy
Container

Bumpy
Hollow
Fuchsia
Small

Sponge Bow



Compressible
Curved
Absorbent

BOWS

Kali Killian & Keri Eastman

Foam Bow



Raised
Flexible
Homemade
Two-sided

Felt Bow



Flimsy
Fuzzy
Flat
Pastel



Reflective
Iridescent
Crinkly
Translucent

Package Bow



Segmented
Limp
Hard
Colorful

Pony Bead Bow



Velvety
Crimson
Glittery
Speckled

Red Bow



Vibrant
Rotating
Sheer
Multi-toned

Ribbon Bow



Looped
Lightweight
Springy
Tubular

Mesh Bow

Purple
Molded
Snapping
Pierced



Bow Barrett



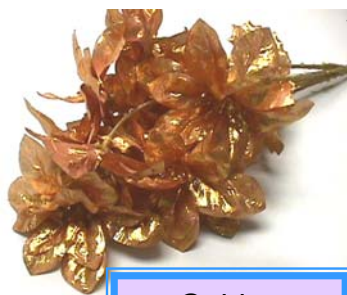
Ponytail Bow

Silky
Partly-checked
Stretchy

FLOWERS

Julianne Miller & Liz Farrell

Bouquet



Golden
Glistening
Branching
Metallic

Lily



Long-
stemmed
Scented
Reinforced

*Tissue
Box*



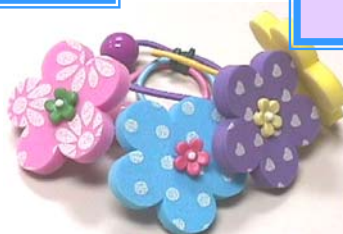
Right Angled
Boxy
Hollow
Four-sided

Night Light



Three-
dimensional
Plastic
Translucent
Electrical

Hair Tie



Foam
Multi-colored
Stretchy
Squishy

Wooded
Painted
Flat
Smooth



*Wooden
Flower*



Decoration

Permeable
Violet
Glittery
Sheer



Toy

Metal
Beaded
Strung
Shiny

Notebook Cover

Bendable
Encased
Rectangular
Floral



Flowers in Pot

Grassy
Planted
Fenced
Supported

