Over the last several years, technology has significantly impacted the field of children’s literature through the creation of a number of apps based on popular books. Kirkus Reviews now even publishes an annual list of the best children’s book apps. Picturebook apps, somewhat like the CD-ROM storybooks of years ago, have their pros and cons. For example, they can expose children to books in another format while helping them to become technologically savvy. However, apps can also lead children to become distracted and play more than they might read unless there is guidance and monitoring on the part of the teacher or caregiver.

This column features reviews of some of our favorite children's book apps along with a list of additional recommendations. As we examined the apps, we considered issues presented in the article “What Makes a Good Picture Book App?” by Katie Bircher (2012). Bircher contends that a good picturebook app “is interactive but not too interactive”; “creates meaningful counterpoint between all parts of the app,” such as the text, sound effects, and music; “makes use of the ‘drama of the turning of the page’—even without physical pages”; “puts users in charge”; “is easy to navigate”; “provides a surprising and joyful experience”; “withstands repeated use”; and “above all, adds to or extends the original book” (pp. 72–78). Bircher ends her piece by reminding readers that “the most successful picture book apps will remain the ones that keep story front and center” (p. 78). We hope that teachers will consider using some of these picturebook apps with their students.

Planes
Written and illustrated by Byron Barton
Developed by Oceanhouse Media

This interactive app, which includes the original text and artwork of Byron Barton, explores a variety of planes and their functions. As the book’s simple text is orally narrated, bold and vibrantly colored illustrations of planes, cities, beaches, water, clouds, and workers materialize, encouraging readers to tap and drag objects. Tap an object, and it is pronounced as the written word instantaneously soars across the screen in bold letters. Tap a word to hear it repeated, or hold a finger on a word to hear the entire sentence repeated. With the touch of a finger, most objects can be physically dragged from one end of the screen to another, making this app even more engaging.

In addition to encountering jets, seaplanes, crop dusters, sky writers, and other types of planes, readers are introduced to related objects, such as the sky, airports, pilots, workers, beaches, water, cities, farms, and trucks. Simply tap any object on the screen and the word will be pronounced and displayed. Sound effects such as jets zooming through the sky, seaplanes splashing as they land, children laughing at the beach, and workers

Reference
barking orders as trucks are being unloaded
undeniably enhance the story. Oceanhouse Media
has taken a delightful picturebook and reinvented
it by making the story interactive. The result is a
dazzling app that young lovers of planes will find
both exhilarating and memorable. (AB)

Journey into the
Deep: Discovering
New Ocean
Creatures
Written by
Rebecca L. Johnson
Developed by
Lerner Digital

The app for this Orbis
Pictus Honor Book is
dazzling with rich illustrations and informative
content. The journey begins with a photograph of
a new species titled phylum Ctenophora, a type of
comb jelly. This same ruby red animal is depicted
on the front cover of the hardback version, but the
lighting and retina display make the details much
more enhanced and vivid when read on the iPad.
Next, readers gain tips for navigating the eight
chapters, all organized around the different sea
terrains, from shallow edges to the unfathomable
deep. A quick movie presents author Rebecca
Johnson explaining the inspiration for this book,
along with a prologue discussing the Census of
Marine Life where several thousand researchers
from dozens of countries explored the ocean from
2000–2010. Each chapter is written in a friendly
manner, as if the reader is personally exploring the
ocean with the scientists. For example, “Propped
up on one elbow, you’re lying on your side. Your
neck is twisted. Your forehead is pressed hard
against the glass. Your muscles are cramping, and
you’re getting cold. But none of that matters”
(p. 20).

Along with the interesting and illuminating
text, each section has a map that pinpoints where
the researcher is located, sidebars with additional
facts, quotes from scientists, and numerous
photographs with pop-up captions. Readers will
learn about creatures that live 3,280 feet below the
ocean surface. Check out the barreleye that has a
transparent head and huge eyes topped by dome-
shaped green lenses or the spiral poo worm that

Animalia
Written and illustrated
by Graeme Base
Developed by Graeme Base

Animalia is an
outstanding alphabet
book that has stood the
test of time. Each page
features a sentence in
which all (or nearly all)
of the words begin with
a specific letter of the alphabet, and the handsome
illustrations feature many objects (some of which
are difficult to find) also beginning with that letter.
For example, the letter “G” page reads, “Great
green gorillas growing grapes in a gorgeous glass
green house,” and some of the many objects in the
illustrations include a gecko, gong, giraffe, goblet,
globe, guitar, ghost, and grasshopper. The “N”
page reads, “Nine nautical newts navigating near
Norway,” and it features a newspaper, Noah’s Ark,
a nutcracker, a nurse, and a nun. The app includes
sound effects as well. On the “N” page there is the
sound of strong winds and water splashing.

There are several ways to interact with this
app. Readers can listen to Graeme Base read the
book (“Graeme Reads”), and they can play a
game called “Explore Animalia,” which allows
them to seek out particular pages in order to find
selected hidden objects within the illustrations.
“Butterfly Builder” is a game that challenges
readers to solve a mystery word and then locate
it in the illustrations. There is also a zoom feature
that allows readers of the app to look much more
closely at the pages to see all of the objects in the
artwork. The main menu page and symbols on the
other pages make this app easy to navigate. In my
opinion, this app has the potential to make readers
truly appreciate Animalia and pay even closer
attention to its signature artwork. (JM)
The Magic School Bus on the Ocean Floor is an interactive app that uses music, narration, photographs, videos, and games to familiarize readers with the marvels of ocean life. After teaching a lesson on oceans, Ms. Frizzle, an avant-garde science teacher known for her unique apparel and real-world approaches to learning, takes her class on a field trip to the ocean. Her students are amazed when their bus transforms into a submarine, and their trip to the ocean quickly becomes an excursion into the ocean. As the students travel from the sandy beach to the intertidal zone, continental shelf, continental slope, deep ocean floor, and up to the surface to explore coral reefs and ocean currents, readers learn facts about familiar and not so familiar sea animals and plants.

When the app’s narration feature is activated, each word within the sentence is highlighted and spoken. To hear the sentence again, the reader can simply touch the text box. A simple touch also allows users of this app to hear speech bubbles, titles of books and posters, key vocabulary words (prominently printed in bold blue letters), and more. When animated air bubbles are touched, an audiovisual wall screen featuring photographs, videos, games, and additional facts is revealed. Touching the word “Back” promptly returns the user to the story.

“X-Ray Vision” is one of the eight interactive games included with this app. When the hammer-head shark, swordfish, tiger shark, or dolphin is selected, the reader can choose to see the internal framework of these vertebrates and learn unusual facts about their bones/cartilage, jaws, teeth, and foreheads. Other games include “Swimmers in the Sea,” “Let’s Make Waves,” “Go Fish!” “What Is Plankton?” “Hot Water Vents,” “Coral of Many Colors,” and “Into the Deep.” The Magic School Bus: Oceans is simply delightful, and readers are certain to find this interactive app both intriguing and educational. Without getting wet, exploring the sea and its countless life forms has never been more fun! (AB)
smaller dots when pressed. These explode in a visual and audio display, activated further by tapping. Pressing the yellow box in the bottom right-hand corner returns home. Tapping the space reveals the box.

Games such as “Memory,” “Drawing,” and “Inside Goal” (table hockey, complete with cheering and off-sides referee whistle) will feel familiar. Some activities are fairly self-explanatory, such as “Photo” and “Studio,” but each comes with action—dots that float, sink, twirl, agitate, and roar—and with a twist that requires dragging, tapping, and most importantly, thinking! Others are more complex. Unlike its real-world counterpart, “Music Box” does not play upon opening. One must figure out how to create a symphony on a screen that offers only the introductory static of an old-fashioned record starting to play. “Many Roads” and “Are You Coming?” ask users to strategize movement and consider obstacles. In the latter, hitting an obstacle clears it, but with consequences!

Some dots open multiple game/activity variations. The title activity “Press Here” alternates between screens—dots either stick or fall or bounce around. On any of the screens, however, dots can be added, can change colors, or be dragged for effective finger movement play for the youngest users. In “Yum, Yum!” two hollow dots eat same-colored solid dots with sound effects and a twist. “Yum” and “Yum, Yum!” are opened alternatively from one entry point. In “Yum,” each dot eaten adds to a growing tail. The fabulous “Free Play” randomly opens one of three musical options. Red- and blue-dot pages offer 15 sounds/piano tones (respectively) to be played singly or as chords. Yellow-dot pages allow creation of an overlapping orchestra of 15 piano, tuba, flute, and other riffs that start and stop with a tap.

While space does not allow details on all games/activities, the range and variability is sure to engage toddlers through adults as layers of possibility are discovered. The unexpectedness and lightheartedness of both book and app enhance their appeal. Each offers a carefree joy, with the book offering a more extensive literacy and imaginative experience and the app providing a rich extension that pushes strategic thinking and problem solving and extends the user age-range significantly. Despite the seeming incongruity of the intentionally low-tech book and multifaceted high-tech app, both offer a vivacious experience that is highly recommended. (KM)

**The Fantastic Flying Books of Mr. Morris Lessmore**  
Written and illustrated by William Joyce  
Developed by Moonbot Books

In this bittersweet tale, readers follow Morris Lessmore as he transitions from an “orderly” life to one of adventure and deeper purpose. His world upended by a storm, Lessmore wanders in search of something undefined until he sees a woman “being pulled along by a festive squadron of flying books.” This encounter leads to a fulfilling existence in a world of animated books, each “whispering an invitation to adventure.” Nurturing and sharing the stories, Lessmore ends his days cared for by the books, leaving his story to engage a new reader. The cycle of books and readers continues. Utilizing footage from the animated short film of the same name, the app is exquisite in its attention to detail and engaging in its “hidden” surprises.

This book and app work in such masterful synergy—with the book offering the tactile page-turning experience befitting such a text, and the app adding fantastical, interactive components along with some delightful whimsy. Included are options to manipulate objects (e.g., make houses blow away), movement (e.g., create and speed up the wind), scene changes (e.g., from night to day), and sound (e.g., hearing famous book quotes read aloud), as well as two writing activities, an opportunity to play a keyboard, and five easy
puzzles. Users can foreshadow Morris’s life-changing event by coloring the grey sky blue and can befriend his first book with a shy wave. As the story opens and closes, the app and the animated short film offer a glimpse into the book where Morris “wrote of his joys and sorrows, of all that he knew and everything that he hoped for.” These points of interest are not included in the print book.

The Moonbot icon at the bottom right of each page allows the user to move between pages and control the read-aloud, volume, music, text availability, and text language. Navigation of interactive aspects is supported by sound (e.g., Morris knocking on a door) or soft fade-ins/outs showing where to tap. While illustrations are so crisply detailed they appear almost 3-D, there is an actual 3-D app add-on option. The read-aloud is in English, with the text available in eight languages.

One critique of this visually stunning and engaging app is that the authors quoted in the book are all white (e.g., Dickens, Fitzgerald, Shakespeare, Thoreau, Twain). And of 13 authors explicitly highlighted, only two are female (Shelley, du Maurier). The app would be enhanced by the inclusion of quotes by authors such as Langston Hughes and Fitzgerald’s contemporary Zora Neale Hurston. Despite this critique, the book, app, and animated short movie are exquisite visual displays and offer a powerful story of a life lived in unexpected ways. In addition, the intriguing paradox of books elevated to majestic, even angelic, status in a format that began as a short movie and moved to an app before being released as a book appeals to a sense of ironic humor about literary options in our complex technological world. All three are highly recommended. (KM)

**Additional Recommended Children’s Literature Apps**

- *A Present for Milo* by Mike Austin (Ruckus Media Group)
- *Boats* by Byron Barton (Ocean House Media)
- *Big Nate: Comix by U!* by Lincoln Peirce (HarperCollins/Night & Day Studios)
- *Don’t Let the Pigeon Run This App* by Mo Willems and You (Disney Enterprises)
- *Goosed-Up Rhymes* (Brain and Freeze Entertainment)
- *The Monster at the End of This Book* by Jon Stone (Callaway Digital Arts)
- *Spot the Dot* by David Carter (Ruckus Media Group) (*Please note that Spot the Dot is not compatible with the new iPad.)*
- *The Three Little Pigs: A 3-D Fairy Tale* (Nosy Crow)
- *The Waterhole* by Graeme Base (Graeme Base)
- *The Wrong Side of the Bed* by Wallace E. Keller (Seehere Studios)

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