

# Engaging Students with Real Research: Elementary Guided Inquiry



**south dakota**  
**STATE LIBRARY**  
**Leadership. Innovation. Excellence.**

---

**TIE 2015**



**Joan Upell, School Library Coordinator**  
**[joan.upell@state.sd.us](mailto:joan.upell@state.sd.us)**

**Research  
to Build  
&  
Present  
Knowledge**





**Multiple Literacies**

**Information Literacy**

**Inquiry**

**Research**

---



# Guided Inquiry

---



# Prehistoric Googling

Prehistoric Google citation: "Life Is a Gag."  
9GAG. 2013. Web. 21 March 2013. <  
<http://9gag.com/gag/6864699>>.





# W

# I

# S

# E

# WISE

WONDER

INVESTIGATE

SYNTHESIZE

EXPRESS



## WONDER

- What's the big idea?
- What are my questions? (think)
- Are my questions good? (rethink)
- What do I already know?
- What do I want/need to know?
- Why am I doing this? (purpose)

## INVESTIGATE

Find:

- Where am I going to get information? (search strategy)
- What are my search words? (keywords)
- Where will I look ? (resources)

Think & Review:

- How will I know it's a good source? (valid credible)
- How do the facts fit together? (group)
- Are your questions answered?
- Do I need more information?
- Necessary details?

# WISE

WONDER

INVESTIGATE

SYNTHESIZE

EXPRESS



## SYNTHESIZE

- What did I learn?
- What conclusions can I draw?
- How will I organize my ideas? (group)
- Am I ready to create?
- How can I share what I know? (communicate, express)

## EXPRESS

- Who would benefit from hearing this? (audience)
- Who would I like to share this with? (audience)
- Do I know where my info came from? (source)
- What did I learn?
- What did I enjoy?
- Am I proud of what I did?
- Do I have new questions?



**“Just google it...”**

- **Too many results**
- **Not always free**
- **Filter blocked in school**
- **Wastes time**
- **Inappropriate or inaccurate**
- **Difficult to read**

# Teacher Selected Resources

- **Vetted**
- **Safe**
- **Age appropriate**
- **Non-commercial**
- **Accessible**
- **Readable**





**WeAreTeachers** @WeAreTeachers

4m

Did you share your drink with a dinosaur? Cool #water and #science lesson @nature\_org [ow.ly/K7ih1](https://ow.ly/K7ih1)



# Theme or Topic

---



## Water Can Be...



Laura Purdie Salas

Subscribe 11

151 views

+ Add to   Share   ... More

👍 2   👎 0

Published on Feb 19, 2014

Find out about the many roles water plays in WATER CAN BE..., a poetic exploration of water throughout the year. This rhyming nonfiction picture book is published by Lerner/Millbrook.

## ABC Graffiti

### Topic: Water

Ammonite, algae, agriculture, aquifer	Nile River
Bridge, bay, bottled, bath, boats	Oceans
Cycle, clouds, creek, canals	Pollution, precipitation, plumber, pond
Drought, dams, dolphins, dinosaurs, dew, density	Quality
Evaporation, erosion	Rain, rivers, runoff
Flood, fossils, filter, fishing, fog, fluid, fresh, fracking	Shed (water), shower, streams, snow, swimming, slough, sewer, steam, sleet, salt, solid
Glacier, ground water, gas	Transpiration, table (water), tsunami, tower (water), toilet, tides
Healthy, hydroponic, hail	Underground, USGS, universal solvent
Ice, infiltration, iceberg, impurities, irrigation	Vapor
Jug (water)	Whale, wet, weather, waves, wells
Kitchen faucet	X
Lakes, lake-beds, liquid	Y
Mermaids, manatee, mosquito, marsh,	Z



**Is my assignment answerable on Google?**

**Can I rephrase this question, with an EQ, which is not answerable on Google?**

**Am I requiring more than “fetching facts?”**

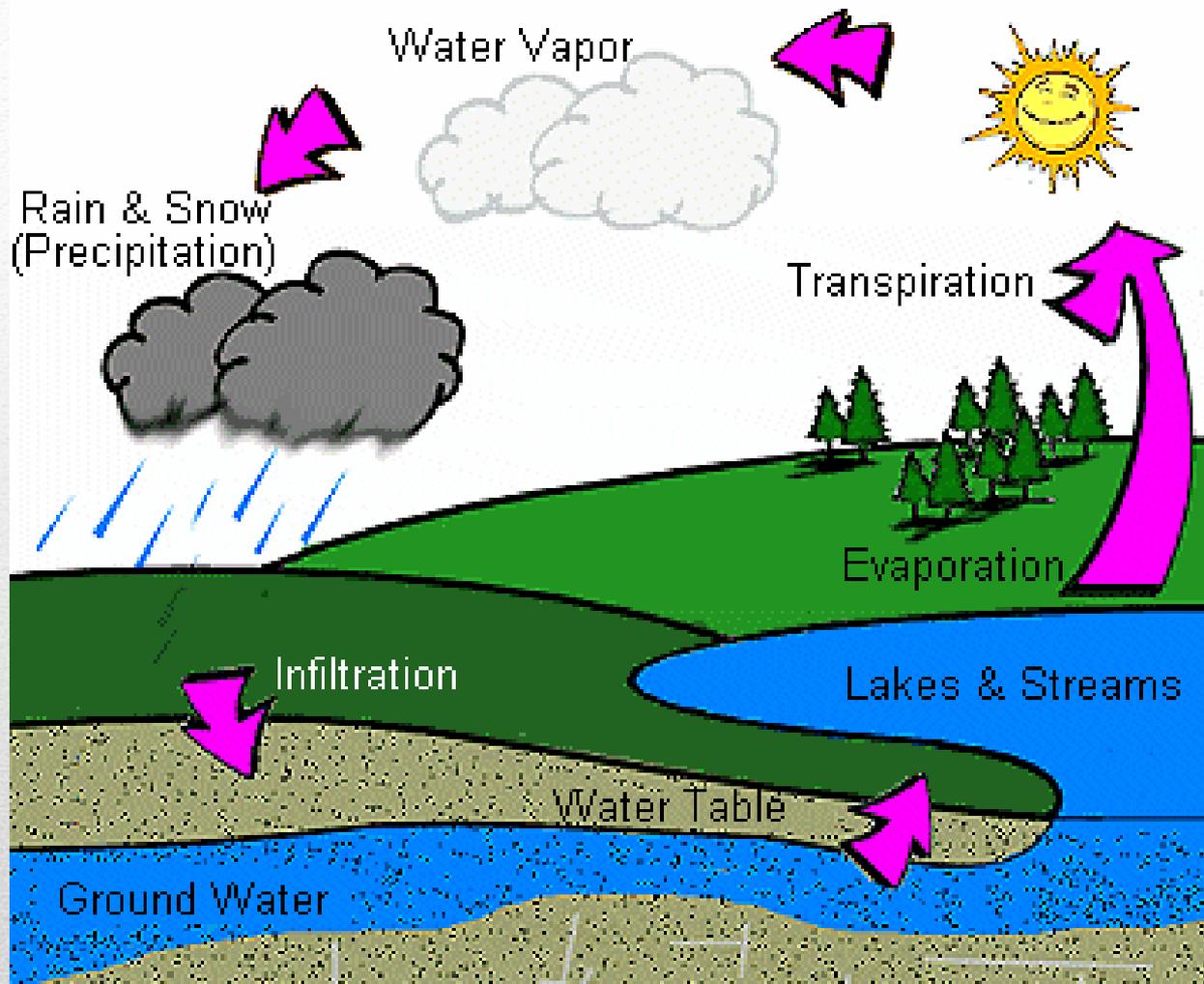
WSWHE BOCES  
School Library System  
pjaeger@wswebooces.org

---



# Essential Question

---



# Guiding Questions

---

# My Research 3-2-1

**List 3 things you learned:**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**List 2 things that surprised you:**

1. \_\_\_\_\_

2. \_\_\_\_\_

**Write 1 question you have:**

1. \_\_\_\_\_

# KWL

What's the Question?

**What do I think I know?**

**What do I wonder?**

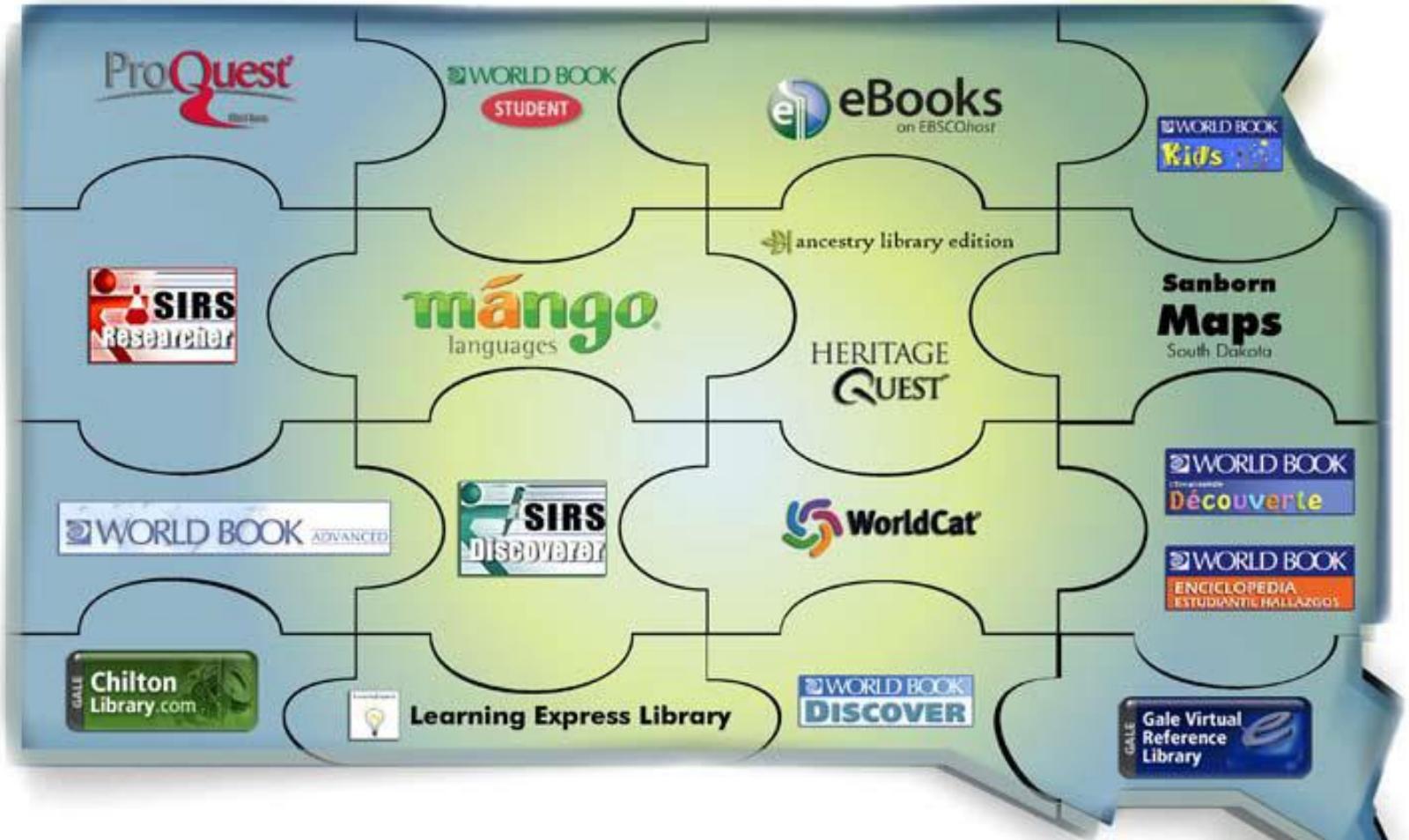
**What have I learned?**

What do I  
know?

What do I want to  
know?

What did I  
learn?

**I know: a lot, some, a little**



# State Library Resources

---



south dakota  
**STATE LIBRARY**  
Leadership. Innovation. Excellence.

**24/7 Access**  
**<http://library.sd.gov>**

---



Search

Search All  Search Images [Advanced Search](#)

## World Book Explains

[Back](#)

Browse videos by:

[New Videos](#)  
[Partners](#)

[Animals](#)

- [Amphibians](#)
- [Birds](#)
- [Dinosaurs](#)
- [Fish](#)
- [Insects](#)
- [Land mammals](#)
- [Reptiles](#)
- [Sea mammals](#)
- [Zoos and animal research](#)

[Arts, entertainment, and culture](#)

- [Health and medicine](#)
- [Life science](#)
- [Physical science](#)
- [U.S. government](#)
- [U.S. history](#)
- [World history](#)

## World Book Explains Videos

Ask a Question



### Featured Video

#### Do whales eat humans?

Charles "Stormy" Mayo, Senior Scientist at the Provincetown Center for Coastal Studies, talks about whether whales eat people.



[Download this video](#)

Search all World Book Explains videos:

Search

Animals: Sea mammals

1 - 8 of 15 items | 1 [2](#) [Next](#)

Article

Pictures,  
Videos,  
and More

More  
Information

# Whale



## Article Contents

Lexile® Measure: 770L

Introduction

The body of a whale

Kinds of whales

The life of a whale

Hunting and saving  
whales

# SIRS DISCOVERER

NEW

[Common Core Correlations](#)

Search

## SIRS Discoverer

[Advanced Search](#) / [Search Tips](#)

- Subject Headings
- Keyword/Natural Language Sort by:  relevance  date

Browse Subject Tree



Web

[Discoverer](#) [WebFind](#) [Selected](#) [WebSites](#)

Reference



Current Events



Spotlight of the Month



World Almanac for Kids



Encyclopedia

## Discoverer's Top Pick

Manatee



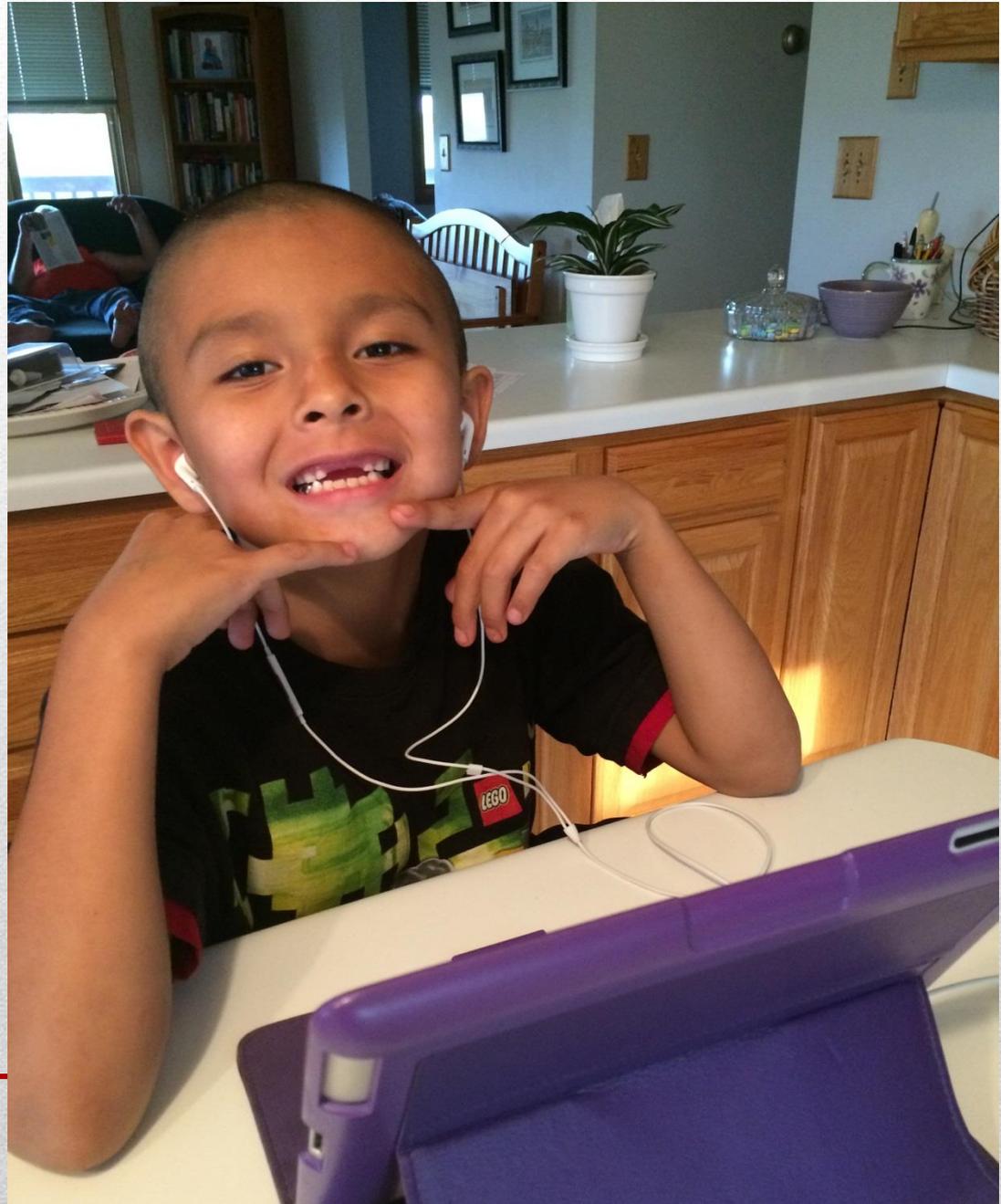
[Protecting Florida's Manatees](#)

## Database Features

- [Activities](#)
- [Animal Facts](#) **New!**
- [Biographies](#)
- [Country Facts](#)
- [Dictionary / Thesaurus](#)
- [Educators' Resources](#)
- [Fiction](#)
- [iThink Skills Tutor](#)
- [Leading Issues](#) **New!**
- [Maps of the World](#)
- [Nonfiction Books](#) **New!**
- [Pictures](#)
- [Science Fair Explorer](#)
- [Skills Discoverer](#)

**...but is  
there an  
app for  
that?**

---



# Best Apps for Teaching & Learning 2014

The apps recognized as Best Apps for Teaching & Learning are of exceptional value to inquiry-based teaching and learning as embodied in the AASL's *Standards for the 21st-Century Learner*. The apps foster the qualities of innovation, creativity, active participation, and collaboration and are user friendly to encourage a community of learners to explore and discover.

- [Books](#)
- [Science, Technology, Engineering, and Math \(STEM\)](#)
- [Organization & Management](#)
- [Social Sciences](#)
- [Content Creation](#)

American Association  
of School Librarians



<http://www.ala.org/aasl/standards-guidelines/best-apps/2014>

---

iPad

Apps

1:00 PM

Play

100%



Precipitation

Condensation

Evaporation

Runoff

Millions of years ago, dinosaurs drank water.



# Water Cycle HD



wonder of the day



explore wonders



what are you wondering?



vote for wonders



educator sandbox

## Search Results for: whales

**Do All Whales Have Bumpy Skin?**

Wonder # 661

Humpback Whales Breaching



**How Big Is the Biggest Whale?**

#42



**How Do Fish Breathe Underwater?**

#62



**Why Are Polar Bears White?**

#136



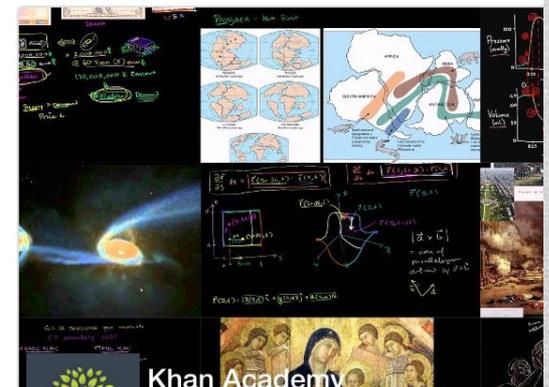
**What Is a Narwhal?**

#480

# YouTube Kids



Learning





**I WANT MORE ANIMALS!**  
· GET FULL VERSION ·



Alligator



Ant



Axolotl



Bee



Cobra



Cockatoo



Dolphin



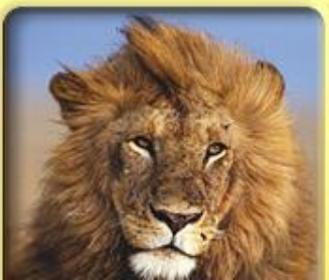
Eagle



Frog



Gorilla



MAP

EDUCATION SEARCH

Library of Congress

Met Museum of Art

The British Library

NASA

NOAA

IMAGE SEARCH

Web Images

Flickr Creative Commons

Wikimedia Commons

Open Clipart

OTHER

Backgrounds



1 Reorder

Next →

# Shadow Puppet Edu

# SOCK PUPPETS™

NEW

OPEN

SETTINGS

STORE



ABOUT

Powered By  
ANIME STUDIO



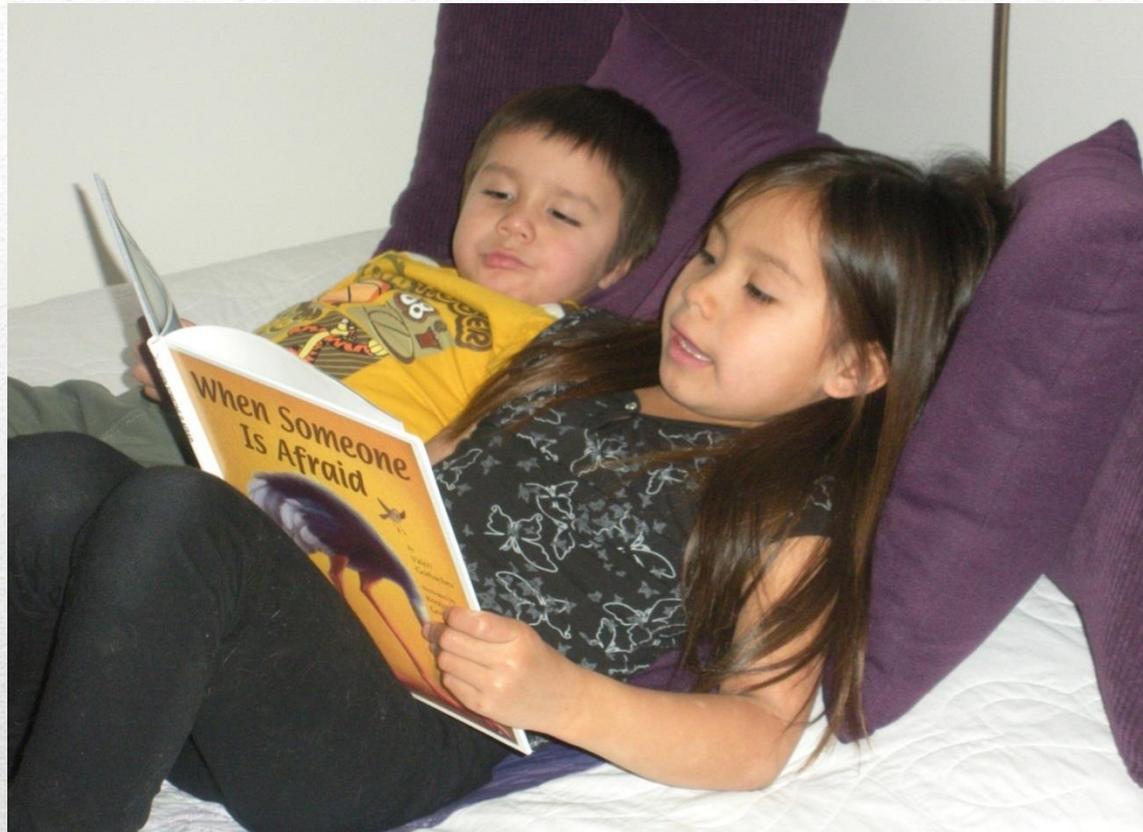
<http://1.usa.gov/1DPxgAS>

**Handouts**

**PowerPoint**

**Curated Resources - Diigo Link**

---



**Thank You!**



**south dakota**  
**STATE LIBRARY**

**Leadership. Innovation. Excellence.**