

A Vernal Pool's Story

(every student a scientist...)

- A Harvard Forest Schoolyard LTER Program
- Teacher: Diane Kablik, CPS Elementary Science Curriculum Specialist
- School: Thoreau School
- Grade: 5th grade, Karen Hoyt's class
- April 11, 2012

Where does the study of Vernal Pools Fit into the Curriculum?

- 4th grade students are introduced to their local watershed (SuAsCo) in the Ecosystems Unit
- 4th graders work with a local biologist in a year long wildlife rehab and conservation project; Head-starting Blanding's Turtles
- 5th grade students focus on the physical and biological characteristics of the SuAsCo Watershed
- By participating in Harvard Forest LTER students can observe changes in local vernal pools and continue to participate in ongoing citizen science project

What is a Vernal Pool?

- Introduction to vernal pools

K	W	L

Vern L. Poole presents:

Vern L. Poole is a character developed and drawn by Doug Cowell of Reading Memorial High School. Vern represents a spotted salamander who works with the Vernal Pool Association to educate humans about the natural history of vernal pool organisms and their habitat. He appears throughout The Vernal Pool website and is featured in several stories we have developed. Two of these stories are available below.

<http://vernalpool.org/vern.htm>

Harvard Forest Schoolyard Ecology
Vernal Pool Characteristics Student Data Sheet

Name(s): _____

School: _____ Teacher: _____

Class: _____ Grade: _____

Vernal Pool Name: _____

Date: _____ Time: _____

Maximum Diameter (meters)	Current Diameter (meters)	Water Depth (centimeters)	Air Temp. (Celsius)	Water Temp. (Celsius)

FIELD NOTES

A	B	C	D	E	F	G	H
Harvard LTER Schoolyard - Vernal Pools							
School Name: Thoreau							
Teacher Name: Kablik							
Grade Number: 5							
Class Name: Hoyt							
Site Description: certified vernal pool off of rt. 62 10 Slowe Rd.							
Date	Dmax	Diameter	Depth	AirT	WaterT	Julian	
9/15/11	15m/7cm	15m/7cm	dry	20 C	no water	258	
11/18/11	640 cm	335cm	2.5 cm	7 C	7.24 C	322	
2/17/12	8.6m	4.8768m	3cm	14C	1.5 C	48	
3/30/12	4.5m	2.13m	1.2cm	16C	7.24 C	89	

Sept. 15, 2011



Mapping Team



Green Team



Weather Team



Wildlife Team



Nov. 18, 2011



Matt Burne

A Field Guide to
the animals of
Vernal Pools



Leo P. Kenney
Matthew R. Burne





Feb. 17, 2012



Terrestrial Organisms



Red Tail Hawk Stalking Display



Squirrel Scat



Aquatic Organisms



Water sample

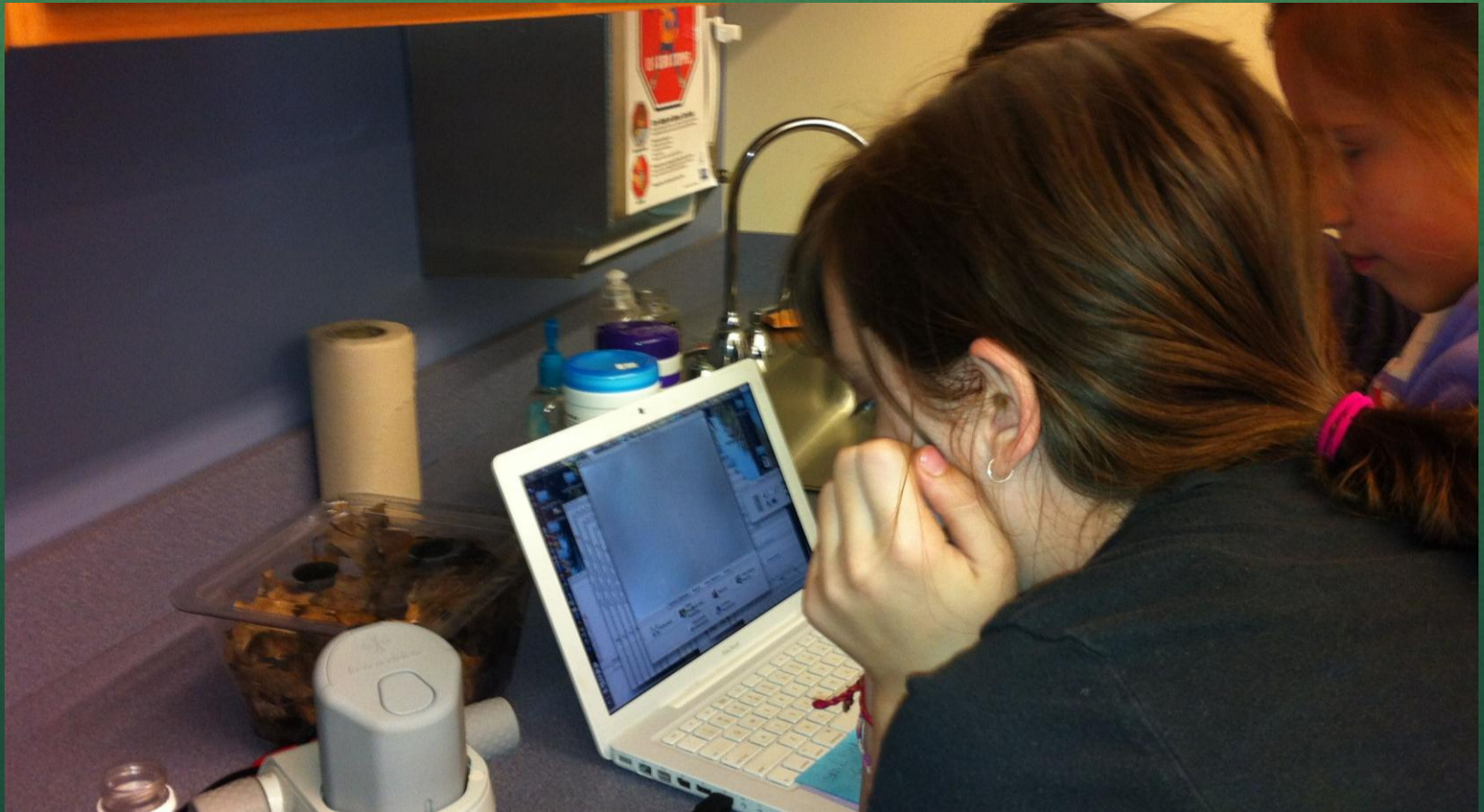


Tiny dancers



Ken-a-vision





Student recordings



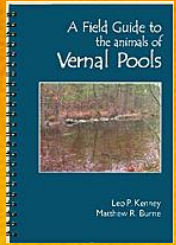
Student recordings



March 30, 2012



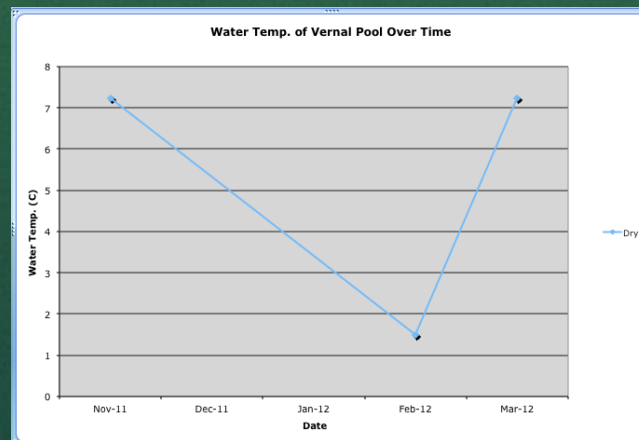
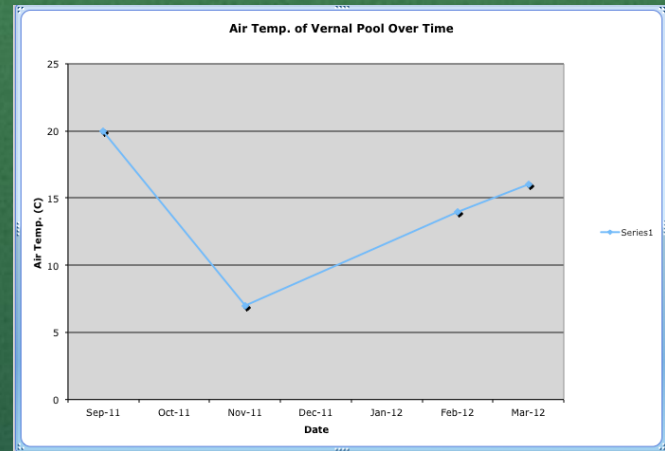
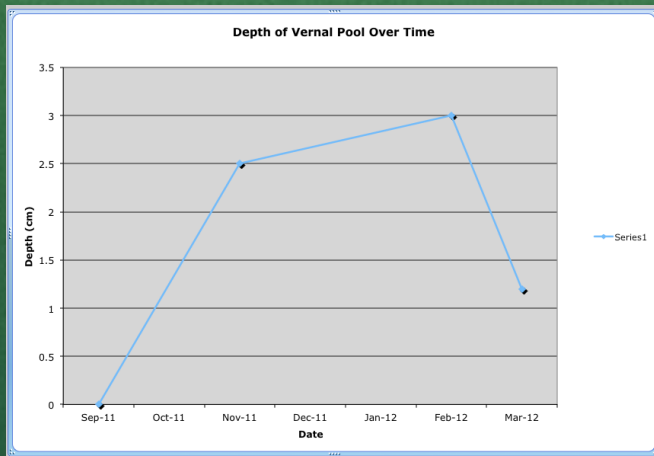
Guest expert – Matt Burne



Wood frog Eggs



Data to Date



SAM

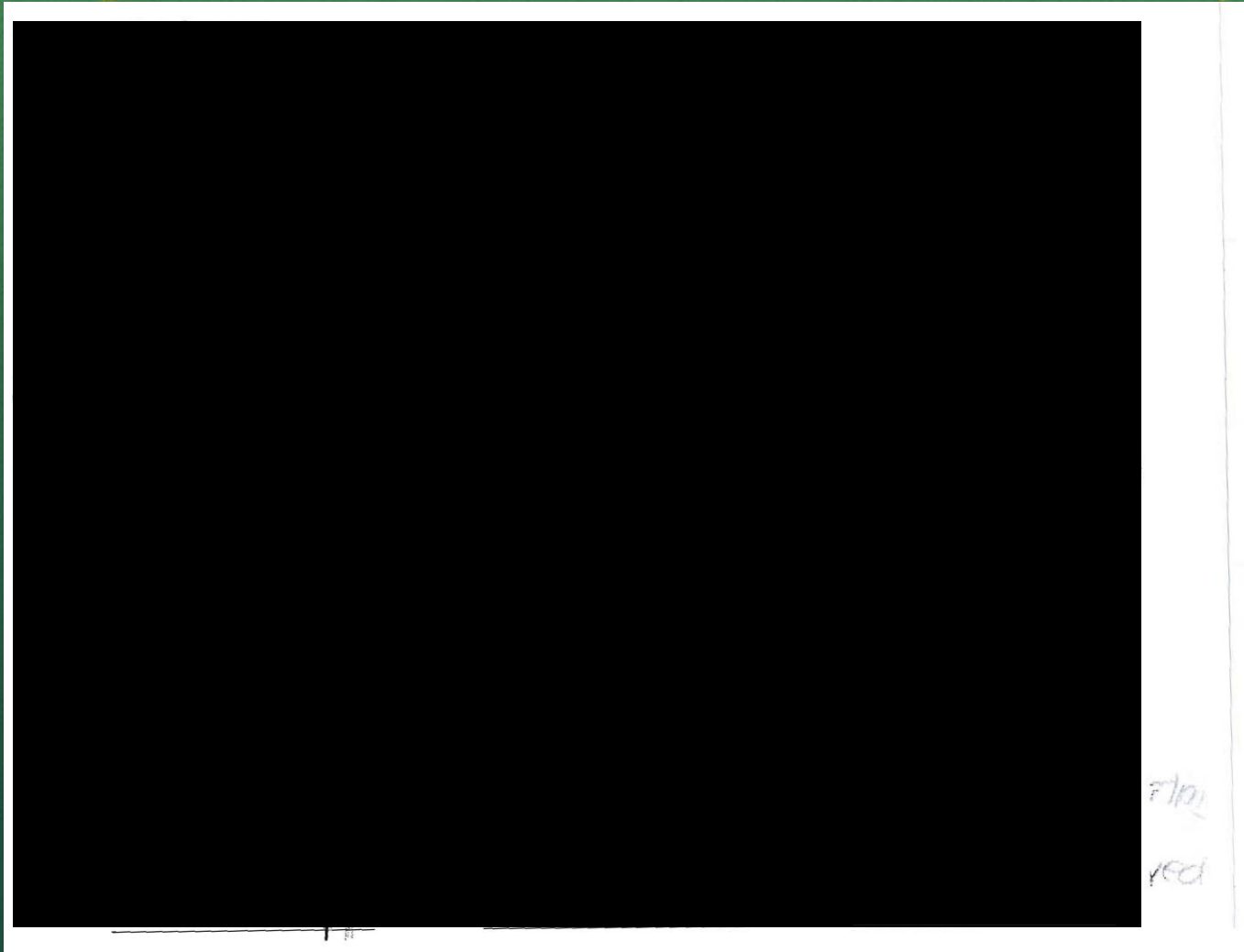
Stop Motion Animation

- Desktop software developed at Tufts University. Software is designed to be intuitive, students spend time creating rather than learning the software
 - Motivate and Engage
- Utilizes technology to promote creativity in the classroom=understanding
- Digital flip book
- **Teacher testimonial, "When the students use stop motion animation they engage in higher level thinking. Students are motivated to teach others and while they are deconstructing and constructing their content knowledge they are able to clearly demonstrate what they've learned. It's a great culminating experience!"**

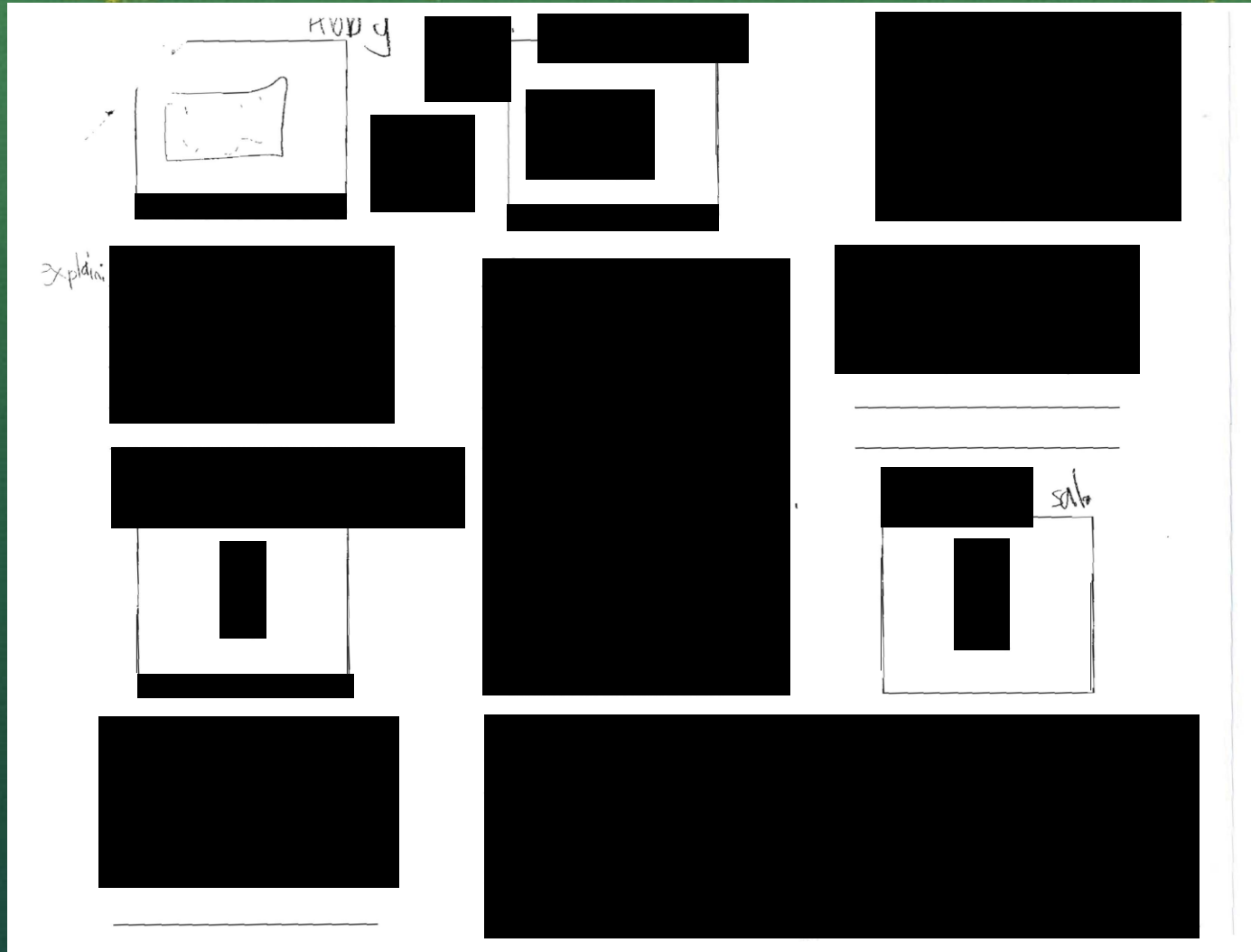
Lesson Plan

- Research different topics about vernal pools
- Use SAM animation to create a PSA (no more than 2 minutes) about the importance of Vernal Pools
 - Topics include:
 - What is a vernal pool?
 - Life in a vernal pool
 - Importance of vernal pools
 - Human Impact on vernal pools

Brain frames



Storyboards



SAM Animations



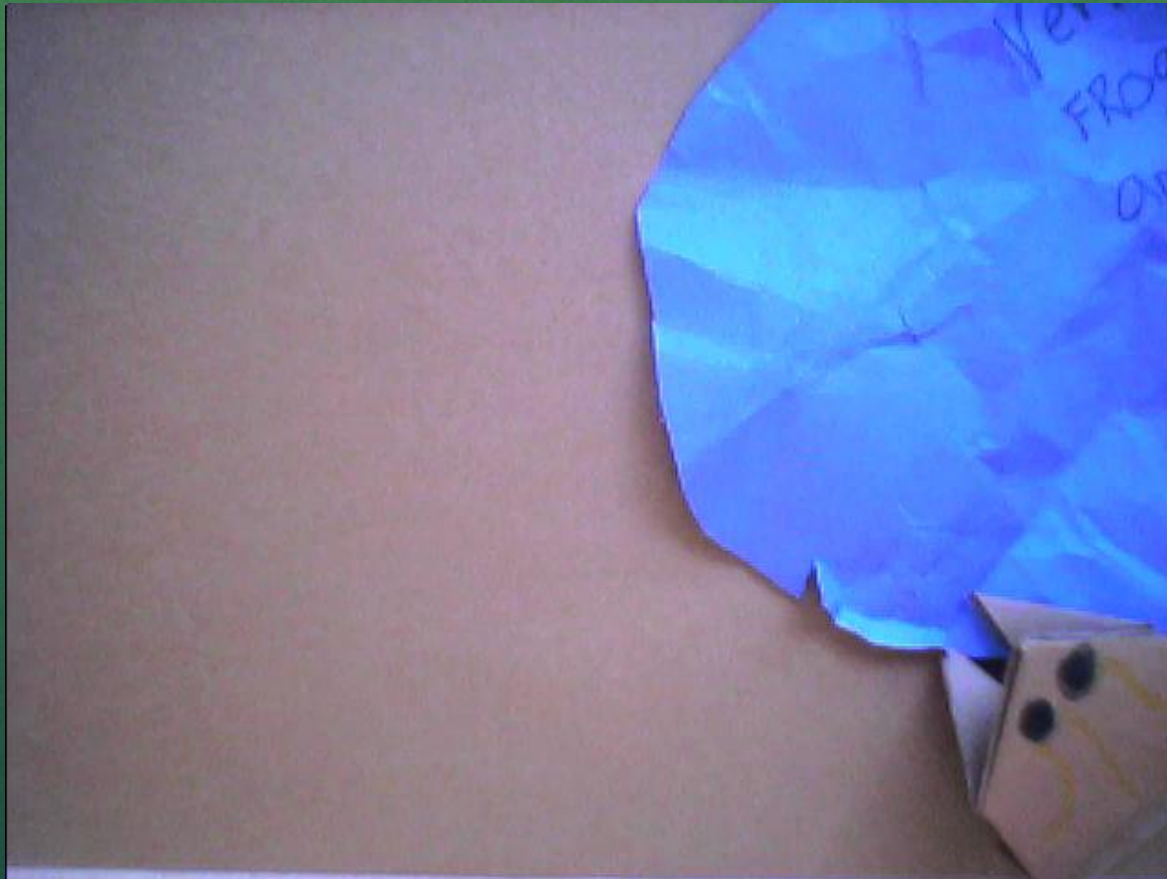
Common Snakes



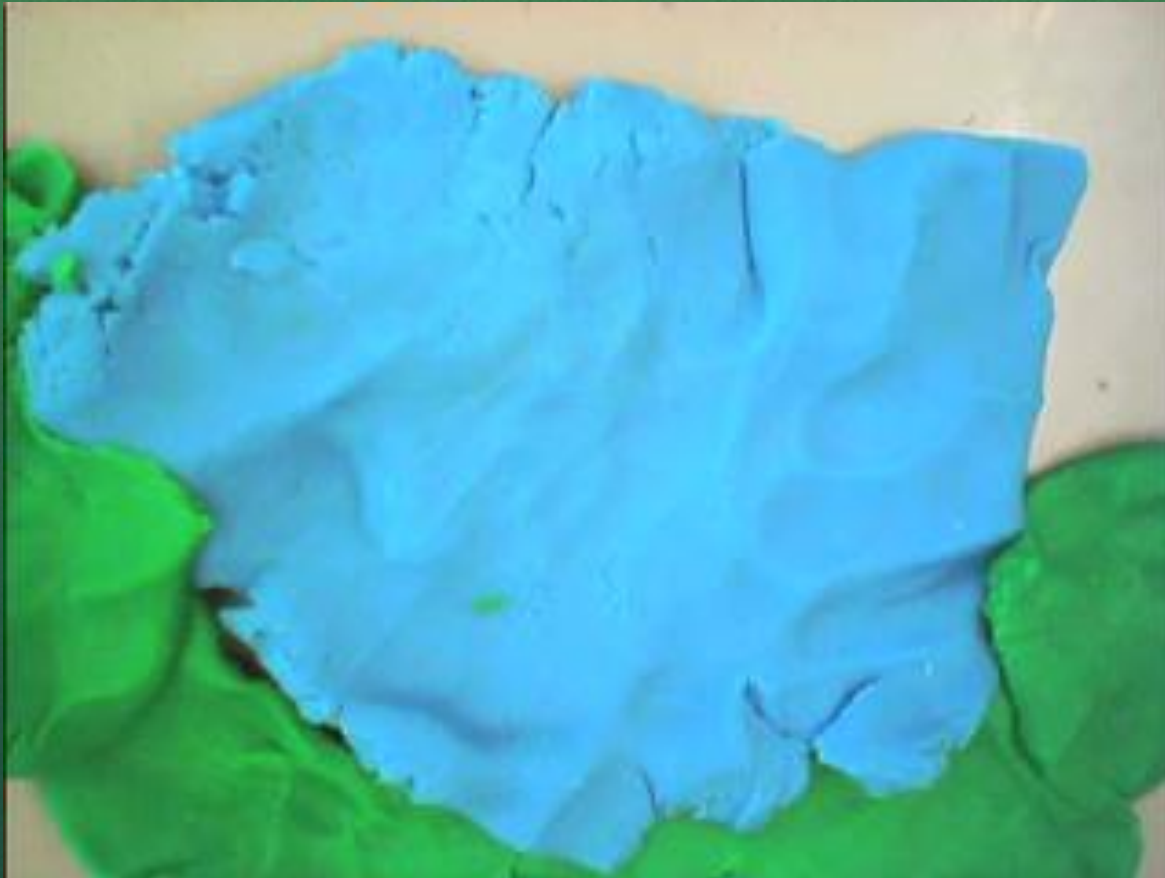
Vernal Pool Description



Frog Life Cycle



Obligate Species



SAM Superstars!



- Congratulations to the 5th grade students at Thoreau School!
- Karen Hoyt's 5th grade class at the Thoreau School in Concord, MA have been selected as this month's SAM Superstars!
- Ms. Hoyt's students participated in the Harvard Forest Schoolyard Ecology citizen science/service learning project. The class collected data on water in the landscape to help researchers answer specific questions about vernal pools such as what seasonal changes take place in the vernal pools and what these changes tell us. As an extension activity, small groups of students used SAM Animation to create public service announcements about vernal pools.
- Laura Johnson
- iCreate Online Community Manager
- www.icreatetoeducate.com
- @icreateeducate

Questions?

