

Structure Your Notebook

- Title page
- 3 pages for Table of Contents
- 5 from back for glossary/references/bibliography, etc.
- Number the pages
- Magic Paper



Page Turner



- Take one of the small post-it notes and attach it to the back of the first blank page in your book, leaving some of the note sticking out from the page.

August 9, 2009

Homer, Alaska

Community Learning Cycle

Story-telling about Environmental Change





Alaska Seas and Rivers Curriculum

Salmon-in-the Classroom
Teacher Workshop
October 22-24, 2009

August 9, 2009

Homer, Alaska

Best Practices

- Science Notebooks
- Inquiry-based Science: the Five Es
- Assessment Probes for Formative Assessment
- Field Trips
- Community Involvement
- Authentic Assessment for Final Assessment



El Centro School District, Imperial Valley, California

- Research has shown that students participating in a hands-on science program that incorporates science notebooks has long-lasting results.

Grade 6 Writing Proficiency Exam

| <u>Years of Participation</u> | <u>% Pass</u> |
|-------------------------------|---------------|
| 0 | 22.5% |
| 1 | 68% |
| 2 | 71.9% |
| 3 | 90.6% |
| 4 | 89.4% |

Importance of Science Notebooks in the Units

- Based on the data about using science notebooks while engaged in hands-on, Inquiry science, it was decided that all Alaska Seas and Rivers Week units would incorporate the use of science notebooks.

by Emilye

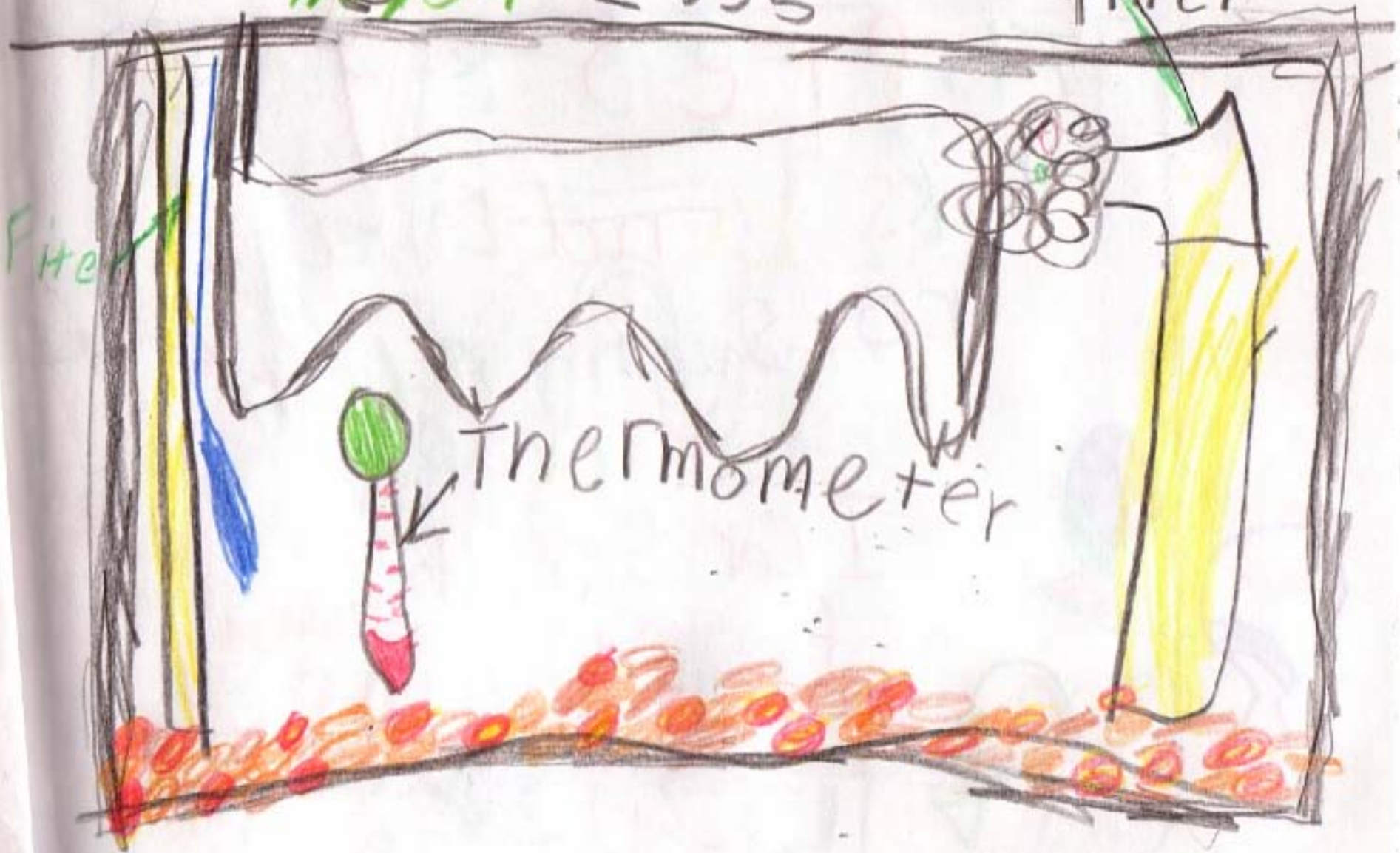


9/23/04 2:35

Filter

Filter

Thermometer



There's Big
rocks and Little
rocks and a Lot
of eggs
I can see it
from the inside
Out



10/6/04
1:10

theromadr

Saman

bare

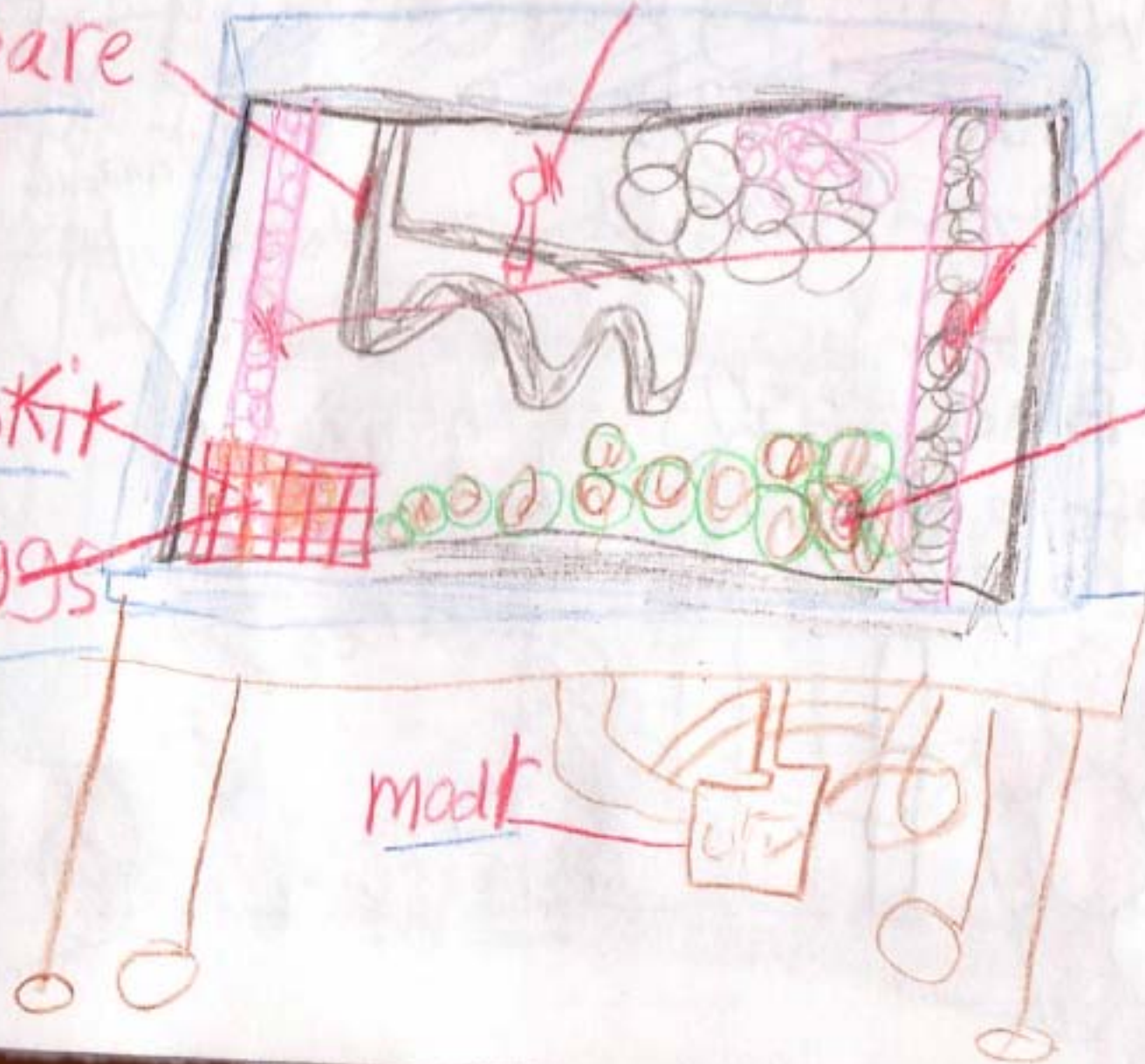
FILTR

basKit

rokse

eggs

modr



January 18 2005

Why do they have white egg's ?
Why are they in a Basket

that dot of the egg and out?

is the start in go of the egg
it is Black and brown and
moofs a lot in the water
the hole egg is Black and red





light
↓

Water
↓

lump on head
↓

eye
→

body
→

Food
→

Fin
↓

Rock
↓

ground
↓

~~the first time i saw the Alavin it wiggled and~~
scowrd and stood back still I got a good look
at it and saw all the little things see for your self.

why can't they
swim?



I think the most
interesting thing
is how they do the
live cycle
the oscicle

The Learning Cycle Model

“The five E’s”



**Engagement
Gear-up**



Evaluation



Exploration



Explanation



Elaboration

Field Trips



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Involve Parents



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Connecting with Scientists



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Community Connections!



Collect and share
local observations by
elders and other
long-term residents.

Share
the Ocean's Bounty

Honor local stories

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Seas and Rivers Celebrations



School and Community Celebration



Communication!



Imagination!



Transformation!





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Community Learning Cycle

Story-telling about Environmental Change



Observation Networks

Tundra Snow Cover

Lake Ice,
ALISON

Permafrost,
Boreholes

Freeze-up

Break-up

Phenology

GLOBE

Seasons &

Biomes

Green-up

Brown-down

Mosquito Hatch

Sea Water
pH

Temperature

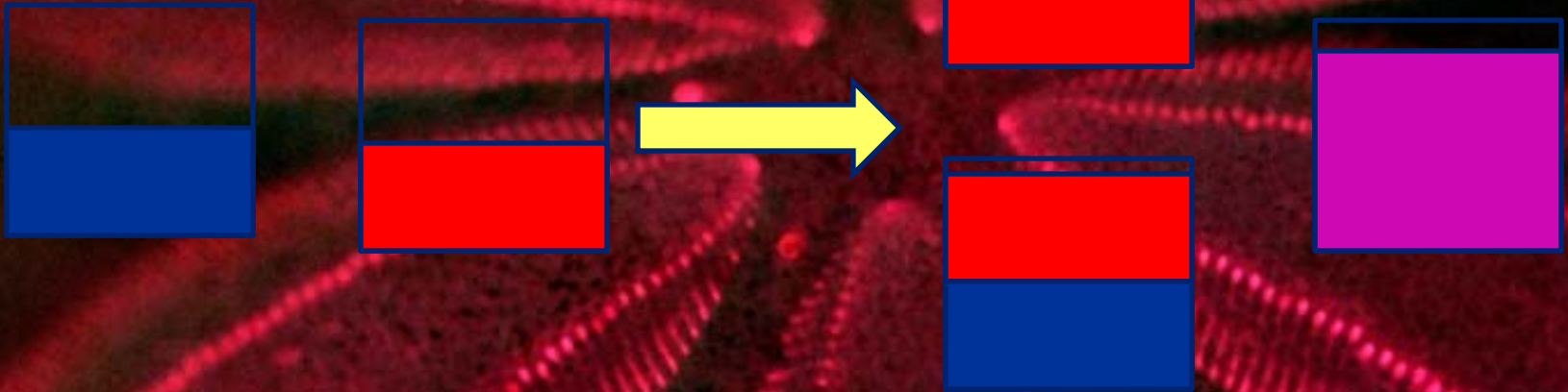
Weather
GLOBE

Wind

Precip

Sea Water
Temperatures

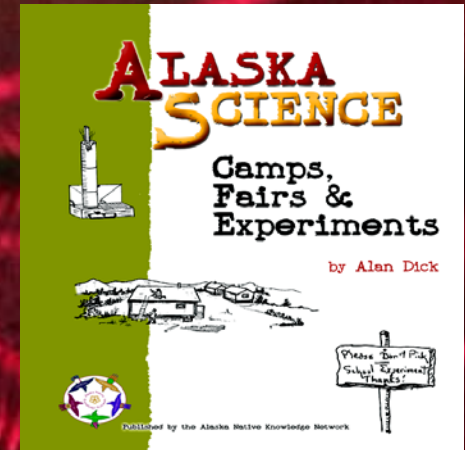
Unit 7 Probe



1. Blue is cold water. Red is hot water. If you pour the cold water slowly and carefully into the hot water container, what do you predict will happen?
2. Blue is water to which salt has been added. Red is distilled water. If you pour the red water slowly and carefully into the container with salty water, what do you predict will happen?

For each experiment, explain why.

Ocean Science Fairs



- Supported by COSEE partner UAF Center for Cross-cultural Studies – school visits and scientist residencies
- Online “how to” resources and potential topics
- Projects are judged for scientific merit and cultural or community relevance at local and statewide levels.