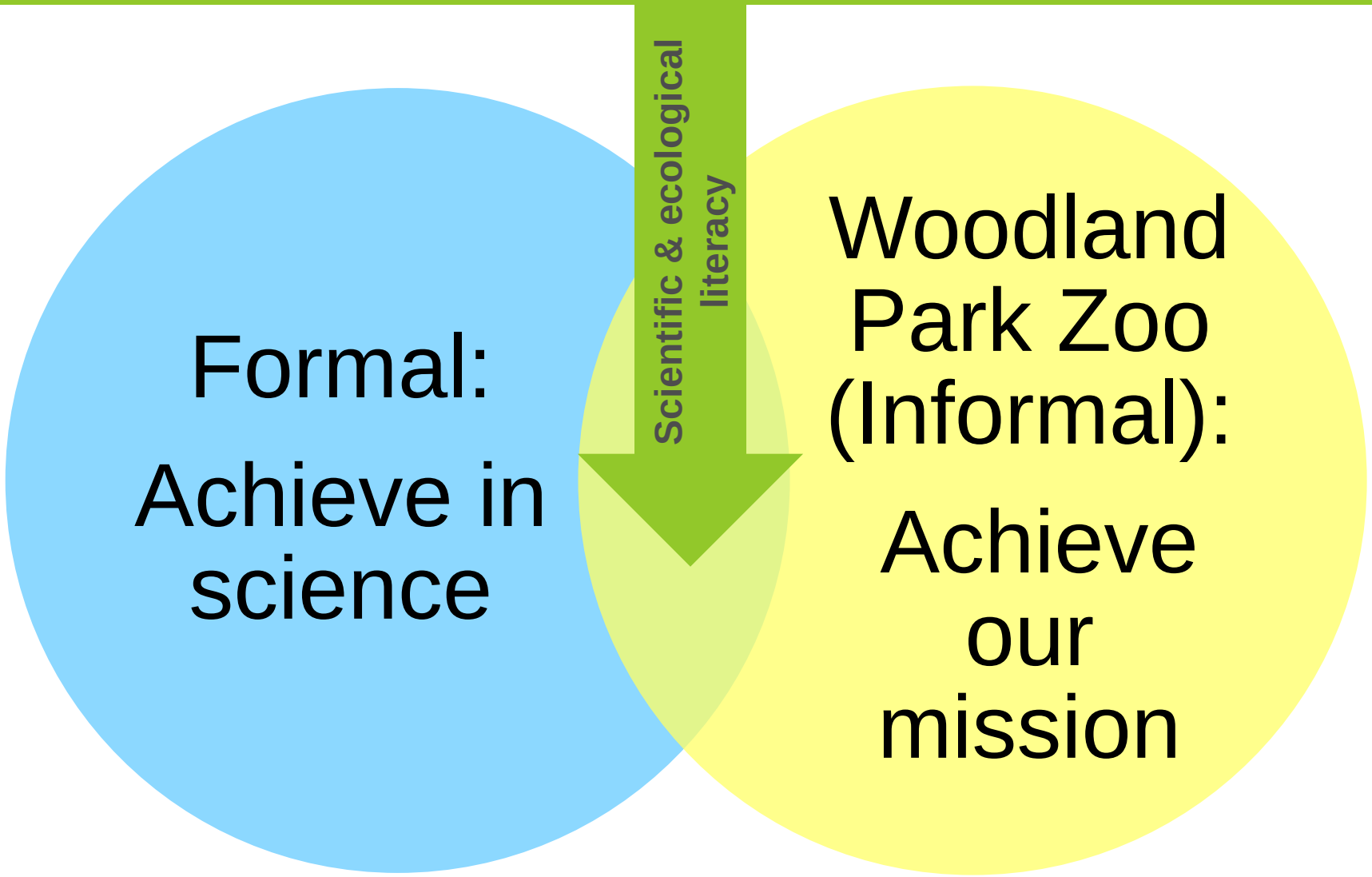
Ready, Set, Discover

A Zoo-District Science Education Partnership

Woodland Park Zoo's mission

Woodland Park Zoo saves animals and their habitats through conservation leadership and engaging experiences, inspiring people to learn, care and act.

Formal Science Education + Informal Science Education

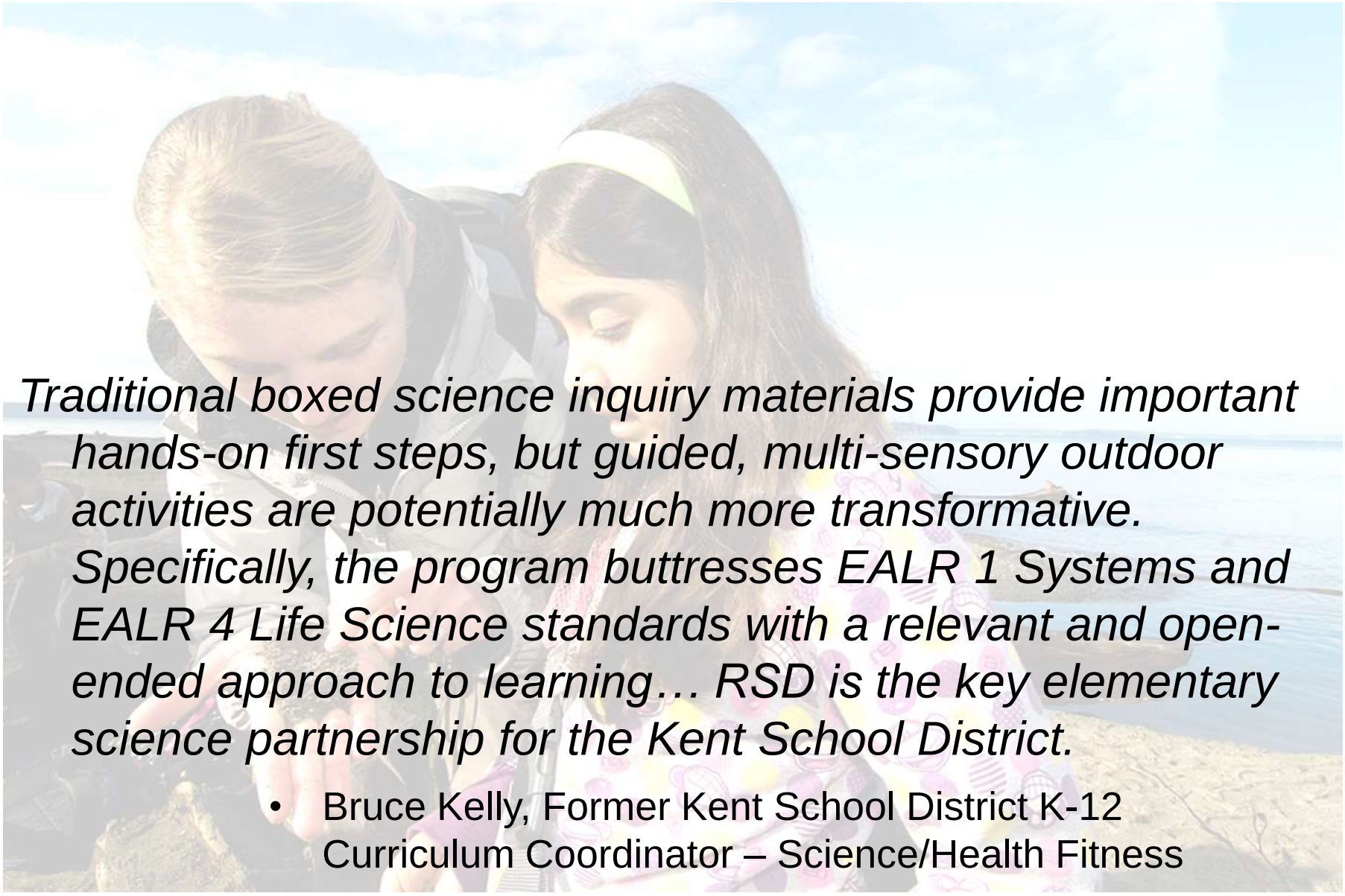


Ready, Set, Discover – Past Objectives

The Ready, Set, Discover program empowers students to achieve in science through:

1) developing a deeper understanding of ecosystems and
2) building skills in conducting scientific inquiry

Ready, Set, Discover



Traditional boxed science inquiry materials provide important hands-on first steps, but guided, multi-sensory outdoor activities are potentially much more transformative. Specifically, the program buttresses EALR 1 Systems and EALR 4 Life Science standards with a relevant and open-ended approach to learning… RSD is the key elementary science partnership for the Kent School District.

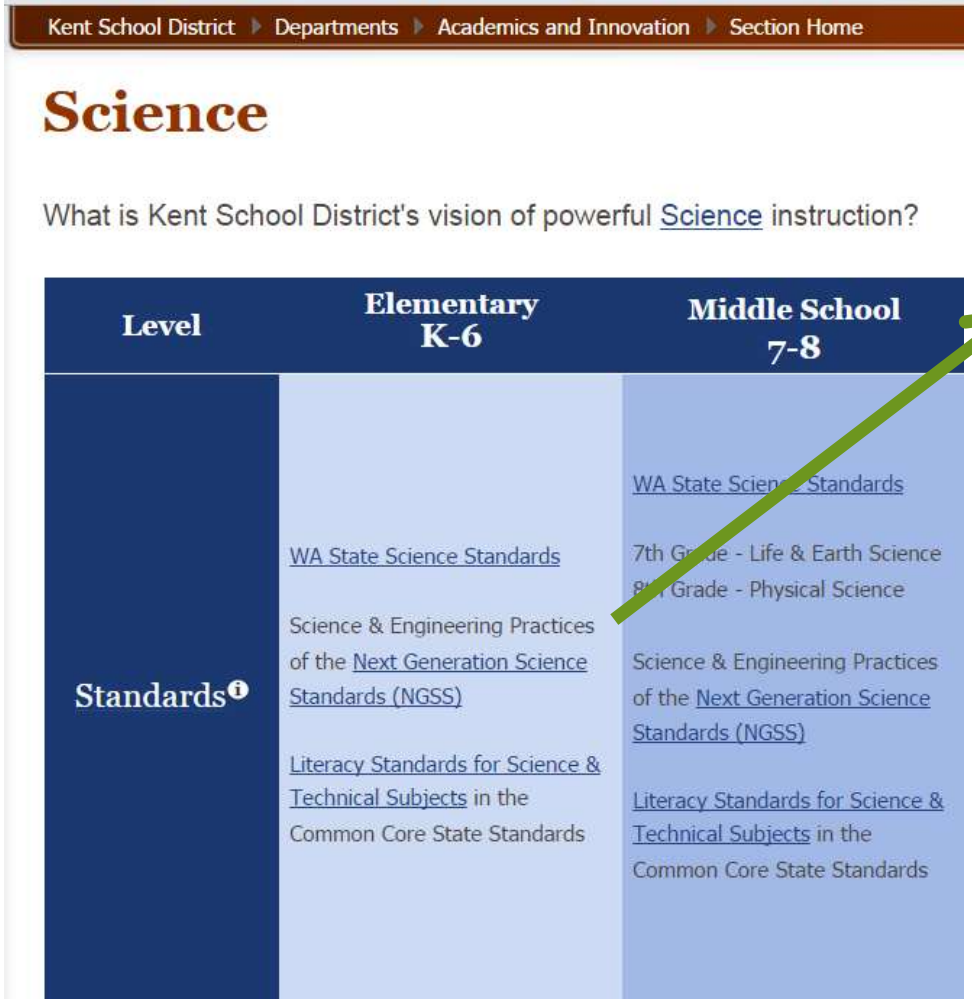
- Bruce Kelly, Former Kent School District K-12 Curriculum Coordinator – Science/Health Fitness

Ready, Set, Discover – New Objectives

The Ready, Set, Discover program empowers students to achieve in science through:

1) **developing a deeper understanding of wildlife roles in ecosystems**
2) **building skills in scientific and engineering practices through problem-based learning**

Supporting Kent elementary schools in transition to Next Generation Science Standards over the next few years



NEXT GENERATION SCIENCE STANDARDS

Science and Engineering Practices

1. **Asking Questions (for science) and Defining Problems (for engineering)**
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. **Constructing Explanations (for science) and Designing Solutions (for engineering)**
7. **Engaging in Argument from Evidence**
8. **Obtaining, Evaluating, and Communicating Information**

Ready, Set, Discover – Summarized Evaluation Results - Students

- Overall, **students are highly engaged** when participating in RSD
- Pre-post surveys have shown a significant **increase in appreciation for native Northwest wildlife**.
- On Formative Assessment Probes, 75% of students provided explanations that illustrated how they had arrived at the answer they selected. Most understand that animals have basic survival needs, including food, and that animals typically have more than one food source. Most students understand simple food links involving two organisms in an ecosystem.
- The majority of students are, by the end of the program, able to demonstrate **understanding of key steps in the scientific reasoning process**: student teams are able to come up with a comparative question based on their own observations, state a hypothesis and engage in data collection using field investigation tools in an appropriate manner.
- We have seen a **25%+ return rate for zoo passes** = high level of family engagement

Ready, Set, Discover – Summarized Evaluation Results - Teachers

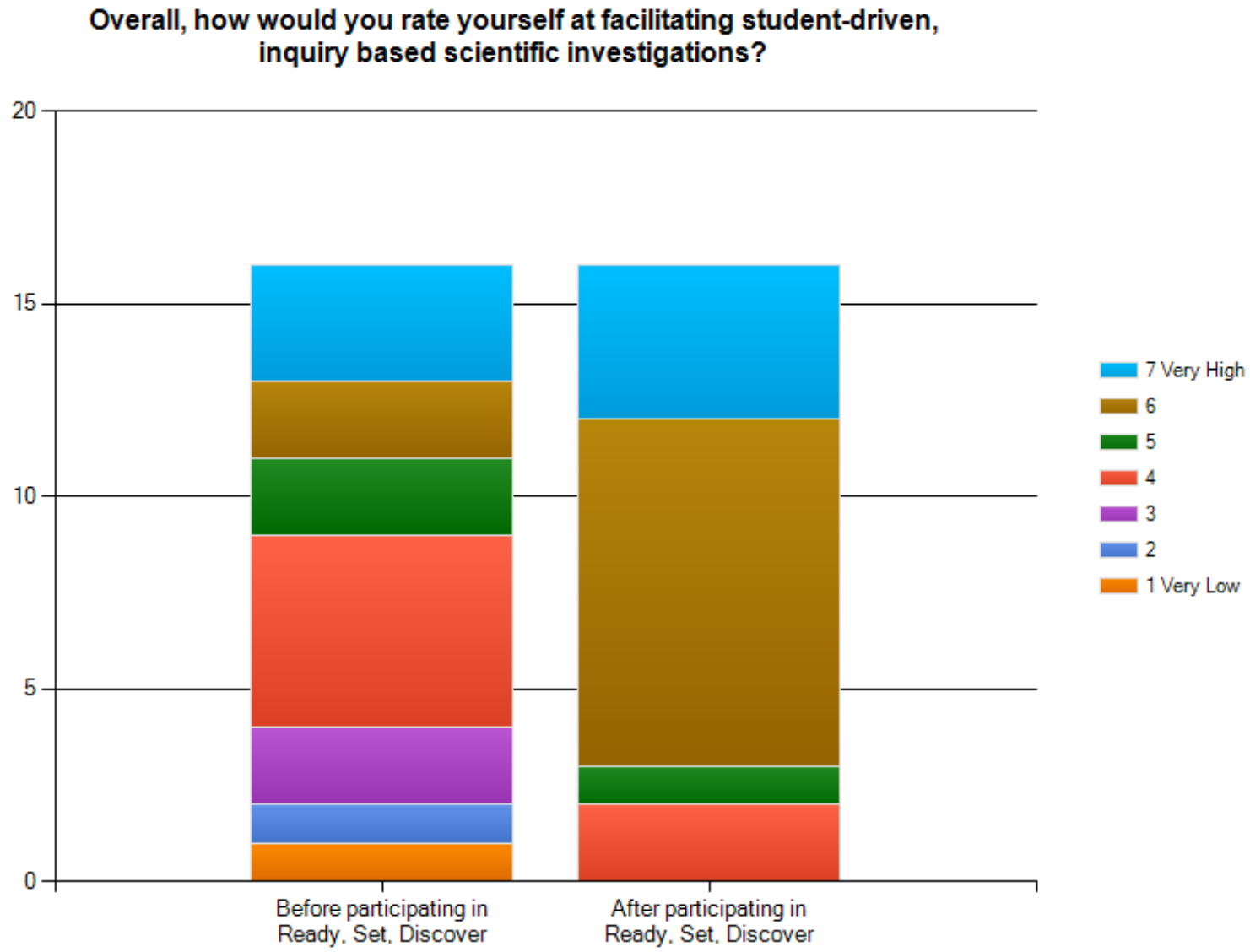
Teachers have indicated that the Ready, Set, Discover program:

1) Supplements and enhances what they are teaching:
   - **engages** students in the practice of scientific inquiry
   - **prepares** students for the Measure of Student Progress in inquiry
   - **develops** communication skills
2) Provides unique opportunities for students:
   - engages students in inquiry **directed by their own questions**
   - gets students **outdoors for learning**
   - provides the **opportunity to go to the zoo**
3) Provides **expert, high-quality informal science instruction**
   Teachers noted the zoo educators' ability to work effectively with elementary-aged children, their knowledge of local habitats and wildlife, and their enthusiasm and passion for wildlife.

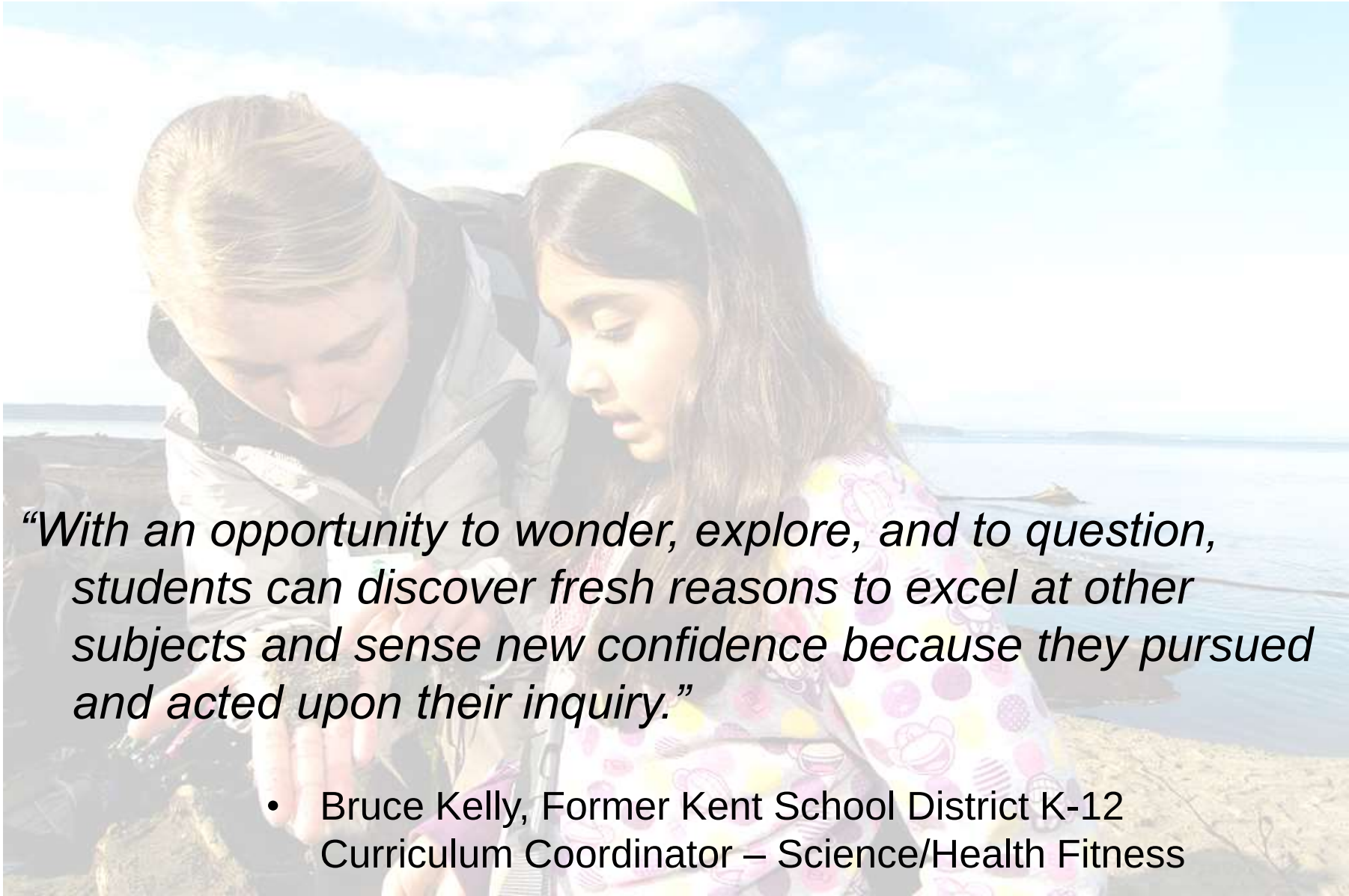
In 2011, RSD was awarded the
Top Honor Education Award
from the Association of Zoos & Aquariums!

Ready, Set, Discover – Summarized Evaluation Results

- Teacher confidence in facilitating student-driven, inquiry-based scientific investigations:



Ready, Set, Discover



"With an opportunity to wonder, explore, and to question, students can discover fresh reasons to excel at other subjects and sense new confidence because they pursued and acted upon their inquiry."

- Bruce Kelly, Former Kent School District K-12 Curriculum Coordinator – Science/Health Fitness

Woodland Park Zoo

Amphibian Conservation

Amphibian Conservation at WPZ

WOODLAND PARK ZOO

A Three-Pronged Approach

Headstarting (Recovery Species)

Education & Training

Helping to Save Species Abroad

Local → **Global**

WPZ: a Long History of Working with Amphibians

Solomon Island Leaf Frog

Dominican Treefrog

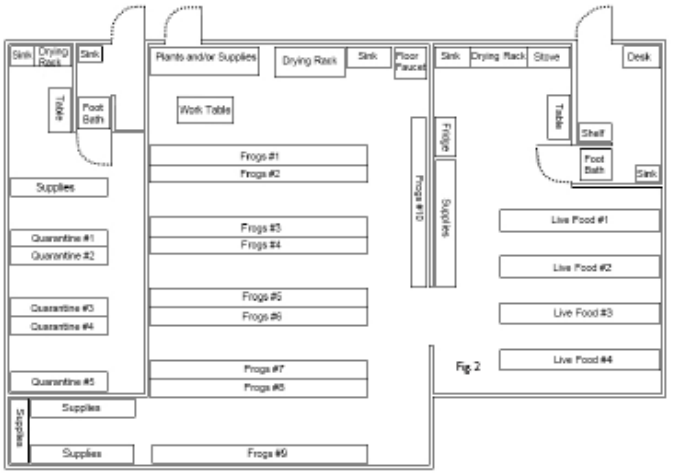
Oregon Spotted Frog

The Oregon spotted frog facility at Woodland Park Zoo

Oregon Spotted Frog

Global Conservation: Madagascar

WOODLAND PARK ZOO



ASSOCIATION OF ZOOS & AQUARIUMS

amphibian ark

Capacity Building

- Training workshop, 2011
- Capacity building and assessment, 2013

Amphibian Monitoring

Citizen science program in partnership with WA Dept. of Fish & Wildilfe

ZooCorps high school volunteers with WPZ staff at amphibian monitoring training day

Amphibian Monitoring 2014: Training!

Amphibian Monitoring 2014: Training!

WOODLAND PARK ZOO

www.zoo.org