

WOODLAND PARK ZOO SAVES ANIMALS AND THEIR HABITATS THROUGH CONSERVATION LEADERSHIP AND ENGAGING EXPERIENCES, INSPIRING PEOPLE TO LEARN, CARE AND ACT.

ZOO.ORG

### Wild Wise: Ready, Set, Discover

Refresher Webinar January 29, 2018

### Agenda



- Program Timeline
- Planning for Sharing Solutions
- Problem Statements
- Generating Solutions and Determining Best Fit Solutions
- Sharing Solution Presentation Formats and Expectations
- Student Checklist
- Questions?

# 2017-2018 Program Timeline



Oct	Nov	Dec	Jan	Feb	Mar	April	May
On-rotation	Meet the Problem	Start research in	Wild Wise & Zoo	Wild Wise & Zoo	Prepare Sharing	Sharing Solutons	Sharing Solutons
teacher training	& Need to Knows	the classroom	Exploration	Exploration	Solutions projects	Visits	Visits
Email Outdoor	Outdoor	Outdoor	Sharing Solutions				Debrief with
Exploration and	Exploration	Exploration	training				Students
zoo registration			(optional)				
forms to WPZ							
Order buses and							End of Program
schedule							
chaperones							

#### Introductions



Please take a moment to introduce yourself in the chat:

Your name

Your school

One highlight of the RSD program so far

# **Planning for Sharing Solutions**



Knows, Need to Knows, (Need to Do)

- Divide class into groups
  - 4 or fewer groups (2 Sharing Solutions format options)
    - Student groups present their solutions one at a time in front of the rest of the class and zoo staff.
    - Student groups are stationed around the room with their materials, zoo staff rotate between groups.
  - 5 or more small groups (1 Sharing Solutions format option)
    - Student groups are stationed around the room with their materials, zoo staff rotate between groups.

# **Local Amphibians**





Western toad



Rough-skinned newt



Northwestern salamander



Long-toed salamander



Red-legged frog



Pacific treefrog



Oregon spotted frog

#### **Problem Statement**



 Defining the problem is critical to problemsolving and can be the most difficult step.

#### Problem statements

- Used by whole class with small groups generating their own unique solutions and projects
- Developed by small groups independently

#### Recommended Format:

- How can we (state the task) in such a way that we consider (the constraining factors)?
- Problem Statement graphic organizer (p. 26)

# **Problem Statement Facilitation Tips**



- Review the "Meet the Problem Session 2"
  - Review another example (e.g. purchasing desks), which can be especially helpful with identifying constraints

- Draft an anticipated problem statement yourself
  - For practice, not to give to students
  - Opportunity for you to practice and prepare for facilitation
- Engage students in an open-ended process to develop their problem statement.
  - What have we been asked to do? (task)
  - What might we consider when finding a solution? (constraints)

# **Problem Statement Facilitation Tips**



 Post the draft problem statement and reinforce that it can be revisited and revised.

 Add on to your existing chart of Knows, Need to knows, and Need to Do as well.

- Have students begin their research to start exploring their need to knows.
  - Sources and Notes graphic organizer (p. 37)
  - Possible research resources (p. 51)

#### **Generating Solutions**



- Student groups brainstorm at least two different possible solutions.
  - Address their problem statement and constraints
  - Should be reasonable/doable suggestions to help amphibians in their community
- May use the "Determining Solutions" graphic organizer on p. 38 of teacher guide.
- Generating Solutions may involve additional research to identify possible solutions.

#### **Determining Solutions**

Student groups should share multiple solutions they have considered. Afterwards, the group must decide on a "best fit" solution.

Team member's name	Their solution

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#### **Determining a Best Fit Solution**



- Students consider their possible solutions and select which is their "Best fit" solution.
- Considering Possible Solutions graphic organizer (p. 39)
- This can be used to develop a CER statement for their choice of best fit solution.
  - Research
  - Outdoor and Zoo Exploration
  - Prior knowledge

#### Considering Possible Solutions

Problem statement:

Our constratining factors are	Solution 1	Solution 2	Solution 3
Factor 1:			
Factor 2:			
Factor 3:			
Factor 4:			
Pros – What are strengths or benefits of this solution?			
Cons – What are challenges or problems with this solution?			

# **Student Projects**



#### Student presentations should include:

- Problem statement
- Research and information gathered
- Possible solutions considered
- Best fit solution and supporting evidence
- Viability of solution

### **Student Project Checklist**



#### CONTENT

□ We shared our problem statement about amphibians in Washington. Our problem statement included two or more factors or constraints. ☐ We shared two connections between amphibians and other ecosystem parts (plants, animals or the environment) that help amphibians survive. ☐ We shared **two or more** possible solutions we considered to solve this problem. ☐ Our best fit solution included a way that we could help Washington amphibians. ☐ We explained why this solution would work the best using evidence from our research Outdoor Exploration and Zoo Exploration. ☐ We explain if our project would be easy or hard to do and how it might help or harm people and wildlife. ☐ We shared the **3 or more** sources where we got our information (such as names of books or websites)

#### DELIVERY

- □ We presented our ideas in order, so they were clear to the listener.
- □ We provided evidence to support our ideas.
- We shared responsibility for the presentation, so every group member got to talk about part of the project.

# **Student Project Format**











# **Sharing Solutions Presentations**



#### On the day of your Sharing Solutions visit:

- Format will depend on the number of groups (whole class or small groups)
- Zoo staff will listen to presentations and assess with the rubric.
- Presentations last about 5 minutes with time for questions and discussion.
- Zoo staff will bring the zoo passes for you to distribute to students.



# Questions?







#### Woodland Park Zoo

January 18 at 1:04pm - @

How would you like to lend a helping hand to frogs, toads and salamanders in our backyard?



Become a citizen scientist for local "wetlands watch" program

Volunteer as a citizen scientist to monitor our ponds and wetlands! BLOG.ZOO.ORG Woodland Park Zoo is starting its next season of amphibian monitoring!

Citizen scientists monitor local wetlands for eight different amphibian species

Check out blog.zoo.org for more information.