



# Riddle of Sol



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**Activity Name: Riddle of SOL**

**Ages: 8-12 (also works for older students as well)**

**Activity Level: Moderate**

**Length of time: 30 to 50 min for participants about 90-120 minutes to prepare - make maps, place clues, make cards.**

**Number of Participants: 10-15**

**Concept:** This activity is great for map reading skill development and for reinforcing understandings of the concepts of energy flow, interrelationships, cycling of materials and change in ecosystems.

**Materials Required:**

Copies of map of area where clues to the riddle are hidden.

12 envelopes, 12 conundrum cards (12 large index cards), 12 letter cards or multiples of these depending on how many groups are participating (we use playing cards for this).

Flagging tape

S.O.L. Riddle Key

Gummy bears or the like or fruit.

**Introduction:** This is a multilayered activity for participants and requires that the participants have had some exposure to ecosystem processes and the Gifts of Nature. Each clue is a conundrum statement for the participants to solve before they can take a letter card with them. Each clue, as found on the map, can be discussed with and among the group to reach consensus on the answer. The leader can facilitate but should avoid offering a quick answer. It is not a race.

The area chosen for this activity should have representative examples of each of the conundrum statements to improve the understanding for visual learners.

**Methods:** Beforehand trace out a route on a map of the area being used and mark where each of the clue cards will be found. Each group participating should have one map, so make as many copies as needed for that purpose.

Make the 12 conundrum cards using the statements provided. Use one side for the conundrum statements and the other for the answer.

Put the one letter card in each of the 12 envelopes. Again depending on how many groups are participating have one letter card for each in each of the envelopes. The letters to use are indicated below.

Take the completed conundrum cards and envelopes with letter cards out along your route and place them on or near as possible to what the conundrum is describing. For instance, "I provide a place to hold roots, store water and provide nutrients". The answer is Soil, so you would put the conundrum card on the ground, preferably bare ground. There will be one conundrum card and one envelope for each site. Mark on your map the location of each and if you wish mark the site with a piece of flagging tape. Make sure the participants know that there are 12 clues and that they have to have all 12 letters in order to solve the riddle of SOL. Note that they will be rewarded once they solve the riddle.

To start divide your group into smaller numbers with a maximum of five for each. If you can have a leader/facilitator for each group especially for younger participants. Provide each group with a map of the clues and explain their challenge:

"You must find all the conundrum clues, answer them, and take one letter card from each. When you have answered all the conundrum clues you will have 12 letter cards. Your next challenge is to decipher the riddle that these cards spell out and solve the riddle of SOL."

Send them out with their maps. We have found that it does not matter where on the map you start as long as each of the 12 conundrums are found and solved. So get each group to start at a different place on the map. Each leader/facilitator will have a S.O.L. Riddle key to assist as needed.

### **Tips for Teachers:**

- The preparation time for this activity is a bit long but well worth it for the value of the activity to the participants' learning. It can be run more than once in different sites, but would need a new map. School grounds can be use for this activity but not as desirable.
- Make sure that during discussion of the conundrum that all members of the group participate and that they reach consensus on the answer. If they do not get it correct, discuss this to ensure that they understand the concept before moving on.
- Our experience is that most of the groups will need assistance with constructing the riddle from the letter cards. Help as much as is possible without solving it for them. Keep reminding them about what some of the conundrum clues provided.

## **Background facts and information:**

### **The S.O.L. RIDDLE KEY**

Use this information to make the conundrum clue cards and answers as well as the letter cards. The riddle is provided on the left side corresponding to the letters that will be in each envelope. Please do not put the conundrum clue cards out in the order they appear here, mix them up.

**S - SOIL- I provide a place to hold roots, store water and provide nutrients.**

**O - OXYGEN - Plants produce me so that all may breathe.**

**U - UNGULATES (DEER) - We are large plant munchers that roam these forests.**

**R - ROOTS - We anchor plants and provide water and nutrients to them.**

**C - CARBON - I am one of the building blocks of life. I am found in every living thing. You may know me as charcoal.**

**E - ENERGY - I flow through all of you to keep you warm,, move muscles and help you grow. I come from the food you eat.**

**O - OTTERS - We eat fish and shellfish and through our wastes (poop) we provide nutrients to shoreline forests and other plants.**

**F - FIRE - I help to renew the forest and release carbon - watch out I am hot!**

**L - LEAVES - We can take the sun's energy and process it to make food.**

**I - INSECTS - There are millions of us pollinating, decomposing, providing food and reducing pests.**

**F- FIR (Douglas fir) - I grow only here in the west because all the conditions for my survival are found here.**

**E- EARTHWORMS - We help churn the soil, put oxygen in the soil, digest wastes and help to reduce nutrients into the soil.**

**The riddle is SOURCE OF LIFE**

**The answer is the SUN or sol (Spanish for sun).**

**Once the riddle has been solved all participants are rewarded with a treat (gummy bears or other).**

**Literature Cited:**

Concept adapted from the Earth Education Institute

Riddle of SOL is an original activity of the Gulf Islands Centre for Ecological Learning.