

# Ingredients of Life Scavenger Hunt

**Grade:** 2-3

**Subject Integrated:** Science

**Rationale:**

In this lesson, the student will explore their homes to find products that contain the essentials ingredients of life.

**Objectives:**

Students will be able to give examples of what is necessary for life found in products in and around their homes.

**Materials:**

- Worksheet (Appendix 1)
- Pencil

**Learning Activities:**

a) Instructional Materials and Resources

- Worksheets
- Examples of each necessity: water, sugar, nitrogen, carbon, proteins

b) Procedure

- Class sits at carpet, waiting for brainstorming stimulus from teacher.
- Teacher explains *what we need to live everyday on Earth: shelter, food, water, clothes.*
- Teacher explains *for life on other planets other things are needed as well: water, sugar, nitrogen, carbon, protein.*
- Teacher shows the students these items as everyday products.
- The worksheets are handed out to the students - they are required to complete this at home with the aid of a parent.
- The students are to find two items that contain one of the ingredients for life.
- The following day, students share different items they found which contain the ingredients for life.

c) Instructional Groups

- Lesson will be taught to the class as a whole.
- Teacher will assist students at recess or at after school program for students who do not receive parental assistance at home.

d) Discussion

- What do humans need to survive?
- What is carbon? What has carbon?
- Where can you find water?
- What foods have sugar?
- What is a protein? Where can you find them?
- What is nitrogen? Where can you find some?
- Are there any questions?

e) Assessment

- Formative assessment will be used as students brainstorm initially.
- Teacher will take notes on students with trouble with the skills for further assistance.
- The teacher will assess the students' based on their completion of the assignment and participation in the discussion.
- Stickers can be placed on worksheet when completed.

**Closure:**

a) Ending the Lesson

- Have students put the worksheets in their mailboxes to take home.
- The next day students will share the different items they discovered.

b) Evaluating and Reflection of the Lesson

- Evaluation of lesson will be done by thorough formative assessment.
- Teacher will observe to see make sure each student understands the concept introduced in the lesson.
- Teacher will make sure all requirements and guidelines are met by giving specific instructions to students who struggle with the skills.
- Teacher will self-critique on what worked well and what did not work well in the lesson.

**Standards:**

- NGSS: 2-LS4-1. (strong fit) Make observations of plants and animals to compare the diversity of life in different habitats.
- NGSS: 3-LS4-3. (supportive fit) Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

## Teacher References

- Dr. Nicolle Zellner (nzellner@albion.edu)
- Dr. Melissa Mercer-Tachick (melissa@museconsulting.info)
- Albion College Physics 105: Introductory Astronomy
- <http://news.nationalgeographic.com/news/2014/06/140625-kepler-exoplanets-life-astrobiology-goldilocks-nasa/>: This is an article about five ingredients necessary for life as we know it.
- <http://phillips.seti.org/kids/what-life-needs.html>: This is another website about what life needs.