JOURNEY 2050

PROGRAM UPDATES

SEPTEMBER 2022

WHAT'S NEW

- USA Farm in the Journey 2050 Game
- GLAG Presentation
- NEW! Deep Dives & Enriching Activities
- Charity Gift Cards
- French Resources

NEW FARM FAMILY

MEET THE VAN LÖBEN SELS FROM CALIFORNIA, USA

Coming 2023! Soon students will have the choice to farm in either Canada or the United States in levels 2-4. Can you guess which crops will be featured on the new farm?

GLOBAL LEARNING IN AGRICULTURE JOURNEY 2050 NEW TEACHER PRESENTATION

Journey 2050 has partnered with Global Teach Ag Network in an effort to create a global learning community for educators and students. Join us for a Journey 2050 teacher presentation on **Wednesday, September 21 at 3:30 PM Eastern Time.** We encourage you to share this opportunity with others. There is social media you can easily share, or to participate:

1. Visit: https://globalteachagnetwork.psu.edu/glag/
2. Click Register
3. Select Digital Pass
4. Enter your custom digital code at Check Out: **GLAG22Journey2050Reach**

TAKE A DEEPER DIVE

Deep Dives are full curriculum-aligned lesson plans based on key sustainability topics, and are now available as an optional extension of the Journey 2050 curriculum.

Watersheds, Soil Profiles, and Erosion

Grade Level

6 - 8

Purpose

Students develop an understanding of what factors impact water quality within watersheds, what soil types/profiles are most susceptible to erosion, and what factors impact water quality within watersheds and how to mitigate erosion on susceptible soils. Grades 6-8

Estimated Time

Three 45 minute activities

Materials Needed

Interest Approach:

- Slide deck with aquatic ecosystem slides
- Water samples
- How Clean is the Water? student handout, 1 per student
- Access to a computer or other device with wifi for possible research

Activity 1:

- Understanding Watersheds slide deck
- Driving Question Board slide
- Understanding Watersheds student handout, 1 per student or per group

Activity 2:

- Watersheds and Soil Profiles student handout, 1 copy per student or per group
- Soil profile tubes and lids, 2-5 per group

THANK YOU TO THE NATIONAL AGRICULTURE IN THE CLASSROOM ORGANIZATION (NAITCO) AND THE NATIONAL CENTER FOR AGRICULTURAL LITERACY (NCAL) FOR PROVIDING THESE DEEP DIVE LESSON PLANS

NEW ENRICHING ACTIVITES

These hands-on activities are intended to solidify Journey 2050 lesson content included in the program curriculum and are located under the optional extension activities.

Teaching and Learning Strategies

Part 1: Introduction to Soil Health & Compaction

1. Ask students what they think soil health is, and what comes to mind when they hear the term. As a class, create a list or web of related words and ideas.
2. Watch the Journey 2050: Nutrients Video. Following the video, add any words or concepts that the video prompts.
3. Ask "who and what is impacted by soil health?" Encourage students to think locally and globally about both people and the planet. Add these ideas to the web.
4. Discuss the term "soil compaction": Occurs when soil particles are pressed together, reducing pore space between. A compacted soil has a reduced rate of both water infiltration and drainage.
5. Have students brainstorm how soil compaction can occur, and what some of the impacts of soil compaction might be on the soil ecosystem of a farmer's field.

Part 2: Soil Compaction Demonstration or Lab

6. Demonstrate, or have students perform the following experiment to illustrate soil compaction: using cereal (preferably multi-coloured cereal), milk, and pint jars, demonstrating soil structure and porosity.
   a. In one jar, pour one cup of whole cereal.
   b. In a Ziploc bag, pour a full cup of cereal, and using your hands, crush the cereal until it is a fine consistency. Pour into a second jar.
   c. Explain to the class that both the contents of the Ziploc, and the whole cereal represent soil. The crushed cereal represents compacted soil. Help students compare the two soil representations. Notice the difference between how dense and compacted each "soil" is. Ask students to consider how soil compaction will affect the living creatures in the soil. How much air will they have? Will a plant's roots be able to push through the soil as easily? What will happen to the soil microbe populations without the right plant roots to feed them?
   d. Use a measuring cup, pour milk into the first jar of cereal. Notice how quickly the milk reaches the bottom of the jar.
   e. Pour the same amount of milk into the second jar, filled with the crushed cereal. Watch what happens. How quickly does the milk move through the compacted "soil" versus the larger chunks? How would soil compaction impact the plant and animal life living within the soil? What sorts of animal life live in soil? Explain that soil health declines when soil is compacted.

THANK YOU TO THE CALGARY STAMPEDE, AGRICULTURE IN THE CLASSROOM CANADA, NAITCO, AND NCAL FOR YOUR SUPPORT IN DEVELOPING THE NEW ENRICHING ACTIVITY RESOURCES

CHARITY GIFT CARDS
NEXT DRAWING COMING SOON

Teachers are invited to share their feedback to be entered to win a $100 Benevity gift card for their class to support a non-profit of their choice through an online Community Impact Portal powered by Benevity.

Teachers must complete the follow-up survey to be entered into a bi-annual draw for the donation credit. Donate the credit as a class to a non-for-profit organization contributing to agriculture sustainability. Most registered charitable organizations are available in the Benevity system.

Draws will take place on approximately November 1st and April 1st each year and are proudly donated by Nutrien. 10 winning teachers from each program option (30 teachers total) will be selected to win on each draw date.

Email templates are available on the Journey 2050 Adminshed to help you share this opportunity with teachers.

FRENCH RESOURCES AVAILABLE

To offer greater access to our French speaking program partners and users, many of the Journey 2050 educational resources are now available in Canadian-French.

Currently all program materials except the game and some enriching activities have been translated. The French resources can be found under the Online Program materials.

THANK YOU to Agriculture in the Classroom Saskatchewan and Nutrients for Life Canada for your support in making these translations possible.

THANK YOU FOR HELPING US MAKE JOURNEY 2050 THE SUCCESS IT IS!

WE COULDN'T DO IT WITHOUT YOUR SUPPORT.

DON'T FORGET TO TAG OUR PAGES ON YOUR SOCIAL POSTS!

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