

Lesson Plan- The International Student Carbon Footprint Challenge (ISCFC)

Purpose:

In the *International Student Carbon Footprint Challenge (ISCFC)*, students use our [student-oriented Carbon Footprint \(CF\) Calculator](#) to measure the impact of personal choices in transportation, home energy, food and purchases. Teachers [share class data](#) with classes around the globe, and use a new communications tool developed by [muut.com](#) to engage students in international conversations about carbon footprints and possible solutions to shared environmental challenges. Climate change is a worldwide concern and must be addressed with global solutions.

Objectives:

- 1) Students will measure their carbon impact from their personal choices in transportation, home energy, food and purchases.
- 2) Students will see the sources and assumptions behind the footprint calculations.
- 3) Students will compare the average carbon footprints of students in other countries.
- 4) Students will participate in international student discussions to investigate perspectives on issues that influence climate change and to find solutions.
- 5) Teachers will have the opportunity to collaborate with colleagues around the world to share ideas for class and field activities.

Procedure:

Below we include suggestions for a successful *ISCFC* experience. We encourage you to have students complete the CF Calculator in class and also use a class period to introduce the *social learning discussion network* and begin discussions. Additional student-to-student discussions can easily be done outside of class.

You may use the following as a checklist and alter plans as you see fit, but to be included in the ISCFC project, your class must follow the ISCFC schedule to complete the Carbon Footprint calculation, join and participate in the peer-to-peer discussions, and complete the SurveyMonkey survey. All steps are also described on the [“Participate” section of the ISCFC website](#). Please do give us any suggestions for improving the ISCFC project.

- Prospective **partner teachers explore the ISCFC website** at <http://footprint.stanford.edu>, test the [Carbon Footprint Calculator](#), and review the description of the social learning discussion network (conversation site).
- Teachers **enroll their class or classes** and choose the time of year that is the best match for their curriculum within the sessions offered by the ISCFC team.
- **Teachers register on the conversation site** using the instructions found in the [basic guide to using our new conversation platform](#).

1. Teachers should complete their own profile with a personal password, and upload their photo or a symbol of their choice.
 2. Teachers can consider discussion questions and make suggestions for student discussion topics.
- **Download the *ISCFC Class Assignment*** at http://footprint.stanford.edu/documents/ISCFC_assignment.pdf .
 - **Introduce/review the concept of carbon footprint in the classroom.**
 - Use the [pictorial key](#) to **review the features on the CF Calculator page** with students and give each of them the *ISCFC Class Assignment*.

(if you are using the mobile version -for phones or tablets- [use this pictorial key for mobile](#) instead)

- **Students calculate their personal carbon footprint** during the week specified by the ISCFC staff members and complete the *ISCFC Class Assignment*.
- **Collect students' data** (their total footprints as well as in the four categories: transport, home, food and purchases). Enter the data for each student on our [downloadable Excel spreadsheet](#). The spreadsheet will automatically calculate class averages and standard deviations.
- **Teachers invite their students to join the international discussions.**
- Students should register on the [conversation site](#) using the instructions found in the [basic guide to using our new conversation platform](#).
- **Students should register their screen names using the following format: first name, initial of last name –country.** For example, Helen Mercy from Australia would register as...
 1. first name: Helen
 2. last name: M-Australia
- Students participate in the international **student collaboration/discussion** on the muut-powered website during class time and/or outside of class.
- **Teachers and students complete the online SurveyMonkey provided by the ISCFC team at the end of your session.**
- **Use resources listed in the [ISCFC “Participate” section](#)** to find suggested student activities to follow-up the ISCFC.

Vocabulary:

Carbon footprint, CO₂ equivalents, geothermal, compact fluorescent light bulb, incandescent light bulb, calorie consumption, kilogram, kilometer, metric ton.