

**Grade Levels:** 4 and 5

**Subject:** Information Literacy: Creating a Custom Search Engine

### **Overview/Purpose**

This is one lesson within a larger unit on website evaluation. In Social Studies class, students have been learning about the presidential election, including the election process, popular issues, and the two major presidential candidates. This information literacy unit has included lessons on note taking skills, identifying hoax websites, Google search techniques, and website evaluation. In all, students are researching two different topics: The election process and one of the presidential candidates. Throughout the process, students maintain a working document in Google Drive, which they use to collect their sources. The website evaluation unit culminates with a reflective blog post on students' personal blogs.

Throughout the unit, student learning is assessed via a combination of lesson exit slips (consisting of one or two questions), teacher monitoring of understanding and progress during independent activities, and reflective questions at lesson closing. Further, a pre- and post-assessment are given at the beginning and conclusion of the unit, respectively.

In this lesson, students learn to create a Google Custom Search Engine (CSE), which makes accessible all student-retrieved and -evaluated websites on the U.S. presidential election process and websites on the presidential candidates for this unit. The CSE reflects student knowledge and expertise on the subject. An authentic product, creating a search engine also gives students a deeper understanding of how a search engine works. Hopefully this in turn improves their ability to search the Web more efficiently and effectively.

### **Standards Addressed**

American Association of School Librarians *Standards for the 21st-Century Learner*:

- 2.1.2 Organize knowledge so that it is useful.
- 2.1.4 Use technology and other information tools to analyze and organize information.
- 2.2.4 Demonstrate personal productivity by completing products to express learning.
- 3.1.4 Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess.



- 3.1.6 Use information and technology ethically and responsibly.
- 3.3.4 Create products that apply to authentic, real-world contexts.
- 3.4.2 Assess the quality and effectiveness of the learning product.
- 4.3.2 Recognize that resources are created for a variety of purposes.

## Learning Objectives

- Students will be able to create a Google Custom Search Engine.
- Students will be able to identify uses for a Custom Search Engine.
- Students will be able to describe how search engines work.

## Resources

- Projector and screen
- Laptops (one for each student)
- Exit slips

## Introduction/Pre-Activity

Recall that students have been searching and evaluating websites on the election process and one of the two major presidential candidates. Students have identified credible websites and written a blog post on the election process. In order to make their selected websites available to others, students are going to create their own custom search engines.

Briefly recall different search engines and how they work.

Show examples of site search and custom search engines:

- <http://www.mjgds.org>
- <http://realclimate.org>
- <http://www.mjgds.org/library/resources/ms-science-fair/>

## Model Activity

1. Go to [google.com/cse](http://google.com/cse).
2. Click *New Search Engine...* (on left) and complete the form.
3. Click *Next*.
4. Select a style.
5. Copy and paste html code into blog post.

## Independent Activity

1. Students login to their school blog accounts and add a new post, title the post, and save the draft.
2. Students open a new tab (command t) and g
3. Students go to [google.com/cse](http://google.com/cse).
4. Students click *New Search Engine...* (on left) and complete the form. They must name their CSE, provide a description, and add URLs (entire website, e.g. [loc.gov/](http://loc.gov/)).
5. Students click *Next* and then select a style.
6. Once complete, students must agree to the Terms and Conditions to generate the html code for the search engine.
7. Once code is generated, students copy and paste the code into their blog posts.

### **Evidence of Learning**

- During class: The independent activity provides students the opportunity to create a Custom Search Engine. As students work independently, teacher monitors progress and offers assistance where needed.
- During class: Class shares ease/difficulty creating a CSE.
- After class: Teacher review of Custom Search Engines.
- After class: Teacher review of exit slips (“Why is it useful to create a CSE?”).

### **Wrap-Up/Reflection**

- Ask students to summarize what they have learned.
- Ask students for examples how a custom search engine can be used.
- Ask students how creating a custom search engine could benefit them--in school and/or in the future.