

LESSON PLAN

Information Sorting

This lesson is part of *USE, UNDERSTAND & ENGAGE: A Digital Media Literacy Framework for Canadian Schools*: <http://mediasmarts.ca/teacher-resources/digital-literacy-framework>.



LEVEL: Grade 4-8

DURATION: 75 minutes, plus time for students to complete the research activity

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This lesson plan is part of the [Critical Thinking Across the Curriculum](#) program. Funding provided by the Government of Ontario.

Overview

This is the second lesson in the *Critical Thinking Across the Curriculum* series, though it can also be delivered independently. In it, students are introduced to the idea of using information sorting to determine whether sources are worth their attention and then to do critical close readings of those that are. After learning and identifying the differences and similarities between the two steps, they learn the characteristics of a reliable source and make a list of *companion* texts that can be used to determine if a source has those characteristics. After practicing that process, they learn some examples of critical close reading skills and use a possibility grid to do a close reading of a news article. Finally they plan, carry out, and reflect on an information

sorting process to make sure they are getting a full and accurate picture of the news story's topic.

This lesson is intended as an introduction to information sorting. The following lessons explore its elements in more detail:

COMPANION READING:

- [Break the Fake: What's real online?](#) (Grades 3-5)
- [Break the Fake: Verifying Information online](#) (Grades 6-9)
- [Mixed Signals: Verifying Online Information](#) (Grades 7-9)
- [Stay on the Path Lesson One: Searching for Treasure](#) (Grades 5-6)
- [Stay on the Path Lesson Two: All That Glitters is Not Gold](#) (Grades 5-6)
- [Stay on the Path Lesson Three: Treasure Maps](#) (Grades 5-6)
- [Stay on the Path Lesson Four: Scavenger Hunt](#) (Grades 5-6)

CLOSE READING:

- [Do Sharks Love Ice Cream?](#) (Grades 7-9)
- [Teaching Media: Critically Evaluating Media](#) (Grades 1-6)
- [Teaching Media: Frame as Story Teller](#) (Grades 1-6)
- [Writing the News](#) (Grades 6-9)

Learning goals

Big ideas/key concepts: Students will understand that...

Digital media are networked: Because it is easy to make and share content online, we need to determine whether sources are reliable before we read them closely

Frequent misconceptions to correct:

The best way to tell if something is reliable is to read it carefully

Essential knowledge: Students will learn that...

Finding and Verifying: Methods for identifying reliable sources and reading them critically

Key vocabulary: Information sorting, companion reading, companion text, close reading, possibility grid, biodegradable

Performance tasks: Students will be able to...

- Access online information
 - Identify when information sorting is and is not needed
 - Identify examples of companion texts
- Use information sorting to investigate a topic
 - Use companion texts to determine a source's reliability
 - Use close reading techniques to read a text critically
- Understand the process of information sorting
 - Identify similarities and differences between companion reading
 - Identify characteristics of a reliable source
- Engage with the implications of which voices are and are not included in a work

Preparation and materials

Prepare to project the following videos:

- *Information Sorting* (<https://www.youtube.com/watch?v=B5-eL5tlaH8>)
- *Companion Reading* (<https://www.youtube.com/watch?v=hjW3kDQpcS4>)
- *Close Reading* (https://www.youtube.com/watch?v=Ca4C9hnp_9w)

Prepare to distribute the following handouts:

- *Companion Reading vs Close Reading*
- *What's Included?*
- *Prediction Grid*
- *"Plastic substitute can biodegrade in seawater, scientists say"*
- *Information Sorting Flowchart*

Prepare to project or distribute the following handouts:

- *Titanic Videos* (print or display version)
- *Titanic Search* (print or display version)

Prepare to distribute the assignment sheet *Information Sorting Record*

Procedure

INFORMATION JOURNEYS

Start by asking students:

- Can you think of a time when you went *looking* for information? (For example, if you wanted to learn how to do something, if you wanted to learn more about something, or you were doing research for a school project.)
- Can you think of a time when information *came to you*? (For example, if somebody told you about something that had happened, if you heard about a news story on TV or online, or if you saw a video online without looking for it.)

(With younger students, you may want to review the word "information" before you begin the discussion. Make sure they are considering as broad a definition as possible: information could be anything, from the current weather, to a recipe for cookies, to a news story or the history of Canada.)

Have students share a few responses, to help them understand the difference between the two contexts and to make sure they have some examples of each to consider.

Now ask: What, if anything, did you do to make sure the information was *true*? Did you do (or would you do) different things when looking for information compared to when information comes to you?

INFORMATION SORTING

After students have discussed this question for a few minutes, tell them that in either case, you need to start with *information sorting*.

Ask students what they think “information sorting” is, based on the name and what you’ve discussed so far. After they have shared a few possible answers, show the video *Information Sorting*.

Now ask students:

What problem does information sorting address? (Having access to too much information, and not knowing what to pay attention to or to trust.)

What are the two steps of information sorting? (Companion reading and close reading.)

Now distribute the handout *Companion Reading vs Close Reading*, or draw a similar diagram on the board, and ask students to fill in the graphic organizer by identifying the similarities and differences between the two ideas. (You may choose to have students do this individually or in pairs, or do it as a whole-class exercise. You may also want to show the video a second time before they do this exercise, to give them another opportunity to understand the two concepts and the difference between them.)

When students have completed the organizer, take it up with the class. Use the *Teacher’s Version* to ensure that all students understand the two concepts and the similarities and differences between them.

Now ask students:

- Why is it important to do them in order – companion reading first, and then close reading? (Because the purpose of information sorting is to reduce how much time and attention you need to spend. By doing companion reading first, you know whether or not it’s worth doing close reading of something. In other words, companion reading is partly about telling you which sources you can *ignore*.)
- Are there times when you *don’t* need to do companion reading and can go straight to close reading? (When you’re looking at something that isn’t trying to be accurate, like a novel or a video game, or when you already know that something is reliable, like a newspaper or a government website.)

COMPANION READING

Tell students that you're going to focus on companion reading first, and then show the video *Companion Reading*.

After students have watched the video, ask:

What are some examples of companion texts mentioned in the video?

- Search engines
- Online encyclopedias
- Trusted news sites
- People you trust (parents, teachers)
- Fact-checkers

Remind students that a companion text should be able to tell you three things about a source of information:

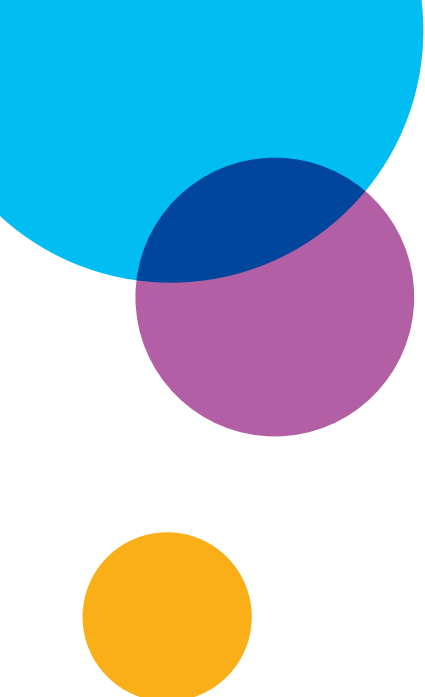
1. Do they know about the topic? (For example, somebody who has lived somewhere their whole life would know a lot about that place.)
 - Do they have a *process* for making sure their information is accurate, and for correcting mistakes? (For example, scientists do experiments to make sure their theories are right, and they also correct other scientists if they can't *replicate* their findings.)
 - Do they have a *motivation* to give you accurate information? (For example, someone who reports the weather wants to give you good information so you'll keep watching or reading them.)

For example, a newspaper has *knowledge* about news events because they send reporters to cover stories. They have a *process* for fact-checking to make sure that the news they print is accurate and print corrections if they make mistakes, and most newspapers are *motivated* to give you accurate information because that's what people buy them for.

What other examples can students think of that could tell you those three things about a source? (Examples might include: print encyclopedias, librarians, people you know who are an expert on a topic.)

TITANIC TRUTHS

Now project or distribute the handout *Titanic Videos*. Tell students that both of these claim to be real footage of the *Titanic*, which famously sank



in 1912. How can we use companion reading to tell whether either of these sources are likely to be reliable?

Let students make a few suggestions, and then tell them (if none have suggested it) that in many cases you can get the answer just by using a search engine like Google.

Depending on your available time and technology, you can either do a live search on a data projector or digital whiteboard, display the projection version of the *Titanic Search* handout, or distribute the print version.

For each video and search, ask students if there is evidence:

1. That they know about the topic?
2. That they have a process for making sure their information is accurate?
3. That they have a motivation to give you accurate information?

Demonstrate to students that when we search for the source of the first video, George Franco (we need to add the word “Titanic” to our search since “George Franco” is a common name) we see no evidence for any of the three questions: the only result is the YouTube channel.

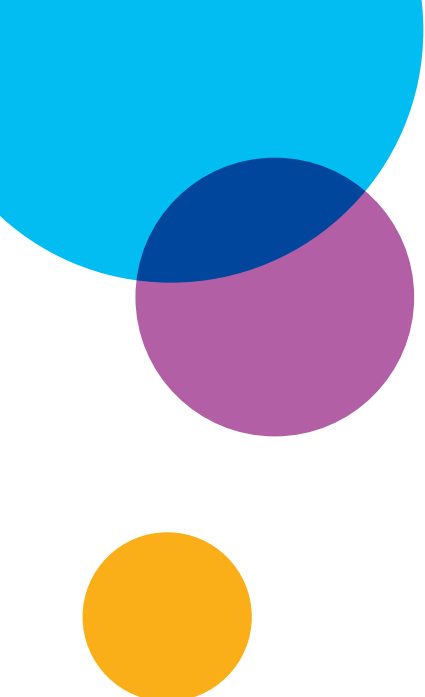
- Point out that this doesn’t necessarily mean the video is fake – only that because we don’t know the source is reliable, we can’t count on it being true.

If we want to keep investigating to see if the video is true, we’ll have to check a reliable source – like a fact-checker, or someone we already know is a reliable source on the *Titanic* – to see what they say about it.

(If students are curious, you can tell them that fact-checkers have debunked this footage.)

When we search for “British Pathe”, we see that:

1. They were founded in 1910 (so they could have filmed footage in 1912)
2. They sent film crews around the world (so they had a process for getting accurate information)
3. They made newsreels and documentaries (so they have a motivation to be accurate.)



If we wanted more detail, we could look at their Wikipedia page or scroll down the search results to see what other people say about them, but just this is probably enough to tell that they are a reliable source on this topic.

Now ask: How would this be different if you were *looking* for information – if you wanted to learn more about the Titanic, for instance, instead of finding out whether or not a video you saw about it was true?

(You could either go directly to sources that you know are reliable, or use one or more *companion texts* to find reliable sources. Point out that search engines don't necessarily only give you reliable sources, so you'll have to use companion reading to check any sources you find using them.)

CLOSE READING

Now remind students of the point at the end of the video: if you are looking for simple information (like whether a news story really happened, or when the bus is coming) you may only have to do enough companion reading to make sure that the source is reliable. But if it's any more complicated you'll want to go on to the second step, *close reading*.

Show the video *Close Reading* and ask:

Why do you only do close reading on sources you know are reliable?
(*Because it takes longer and there are more things to consider.*)

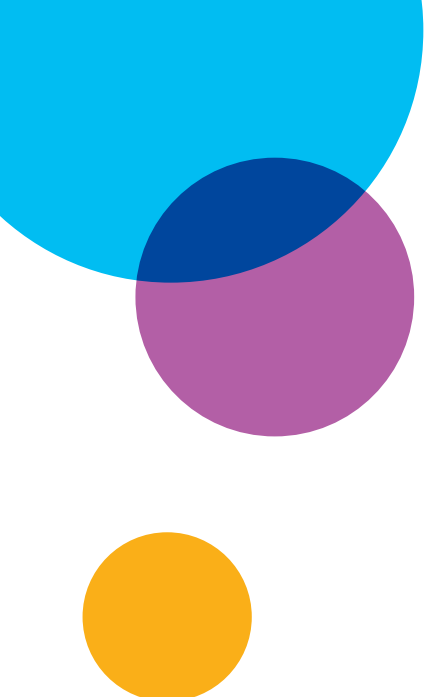
What are some of the things you look for when doing close reading?

- How the media makers use things like images, sounds, music and word choice
- How those make you feel
- What's included and what's left out

Now ask: How can you tell what's *left out* of something?

Tell students that just like scientists make a hypothesis and then test it, you can ask yourself *first* who or what you think ought to be included.

Distribute or display the handout *What's Included?* and have students imagine that they are about to read or view a news piece about a new treatment for a disease. Go through the left-hand column and ask students why each group of people should be included in the story:

- 
- *Doctors who treat the disease:* They know about the current treatments and how important a new treatment would (or would not) be.
 - *Scientists who developed the treatment:* They know the most about the new treatment (why they developed it, what the research shows, etc.)
 - *Other scientists in the same field:* They would give a sense of how the new finding relates to the consensus on the issue. Does it build on what scientists already think? Does it suggest current treatments don't work?
 - *People living with the disease:* They're the ones who would be most affected if the new treatment works (and is better than current treatments.)

Now have students turn to the other side of the page (or project the second page) and ask:

- How important is it that other scientists in the field weren't included? *(There is no single right answer, but you can mention that this depends in part on how settled the consensus is in the field.)*
- How important is it that nobody who is living with the disease was included? *(That's a major flaw in the article. The story is really about them, but if their voices aren't included we don't really know what the new discovery means. For instance, we don't know if people are happy with the current treatments or whether they're hoping a new one will be developed.)*
- Why might the article have included a spokesperson for a group that advocates for people living with the disease? *(You can point out that they might be easier for a reporter to reach than an individual person.)*
- Why might the article have included a celebrity? *(You can point out that rightly or wrongly, people pay more attention to things celebrities say.)*
- Can you think of a situation where the celebrity might have been a relevant source? *(If they or someone close to them has the disease, or if they've done advocacy or fundraising work for research on the disease.)*

PREDICTION GRID

Next, distribute the worksheet *Prediction Grid* and tell students they are going to read a news article with the headline “Plastic substitute can biodegrade in seawater, scientists say.”

Make sure they understand the meaning of the word *biodegrade* (to be broken down by microbes) and that most plastics do not biodegrade.

Have students complete the first four boxes of the *Prediction Grid*.

Distribute the article *Plastic substitute can biodegrade in seawater, scientists say* and have students read it.

After they’ve read the article, have them complete the last two boxes of the grid.

Once students have completed the grid, ask them:

Whose voices are included in the story?

The co-author of the study was included.

Are there any people who might reasonably have been included in the article who aren’t?

Other people who might reasonably have been included could be:

- other scientists who have studied the same thing,
- people whose lives are impacted by ocean plastic pollution (fishers, people who live in places where plastic washes up on beaches),
- people who work in the shoe industry (to say whether they would use this substance instead of the plastics they currently use)
- marine biologists (to talk about how this would affect ocean plants and animals.)

How important is it that these voices were left out?

There’s no right or wrong answer to this question, but you can point out that this article doesn’t really show:

- why plastic in the ocean is a problem;

- whether other scientists in the same field think this will work;
- whether industries that use plastic would be likely to switch to this new kind.

ASKING QUESTIONS

Now ask: Once you know what was included and what was left out, what would you need to know to be sure you were getting the whole story?

Have students start with a blank page and spend three or four minutes writing down as many questions as they can think of. Tell them not to discuss, judge, or start to answer any questions yet.

If you want, you can have students do this in pairs, with each student writing down the other's spoken questions. If students are not able to write down their questions as quickly as they think of them, you can have them use an audio recorder or a text-to-speech app.

When students have finished, have them go through their lists and change any *statements* (such as "Plastics don't break down in water") to *questions* (such as "Why don't plastics break down in water?" or "Which plastics don't break down in water?")

Now have students share their questions to make a master list for the class.

INFORMATION SORTING REVISITED

Distribute the handout *Information Sorting Flowchart* and go through it to review what you've covered so far.

Then distribute the assignment sheet *Information Sorting Record* and have students choose between one and three questions from the class list. (You can assign them to choose one, two or three items, depending on their grade level and your assessment of the class's research ability.) These should be the questions they think will be most useful in helping them get the whole story on the topic of the article.

(You may wish to provide them with resources for doing this or have them use the MediaSmarts [school safe custom search engine](#). If you allow students to do an open search, distribute and go through the MediaSmarts handout [How to Search the Internet Effectively](#).)



REFLECTION

Once students have submitted their completed *Information Sorting Record*, have them reflect on one or more of the following questions (either in class discussion or in writing, as an exit ticket):

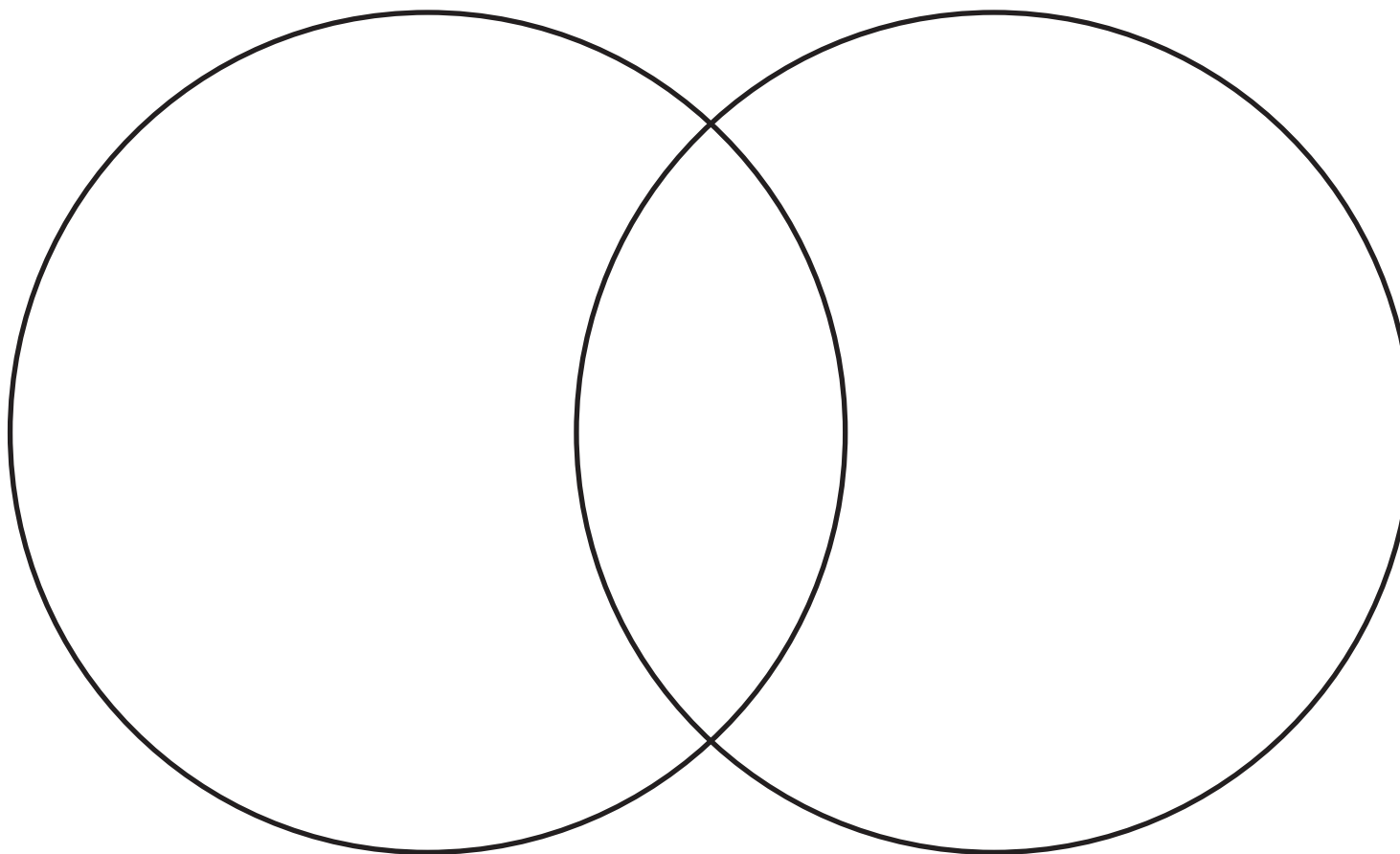
- What did they find challenging about companion reading? What did they find easy?
- What did they find challenging about close reading? What did they find easy?
- How do you think you might use information sorting in school?
- How do you think you might use information sorting outside of school?

INFORMATION SORTING



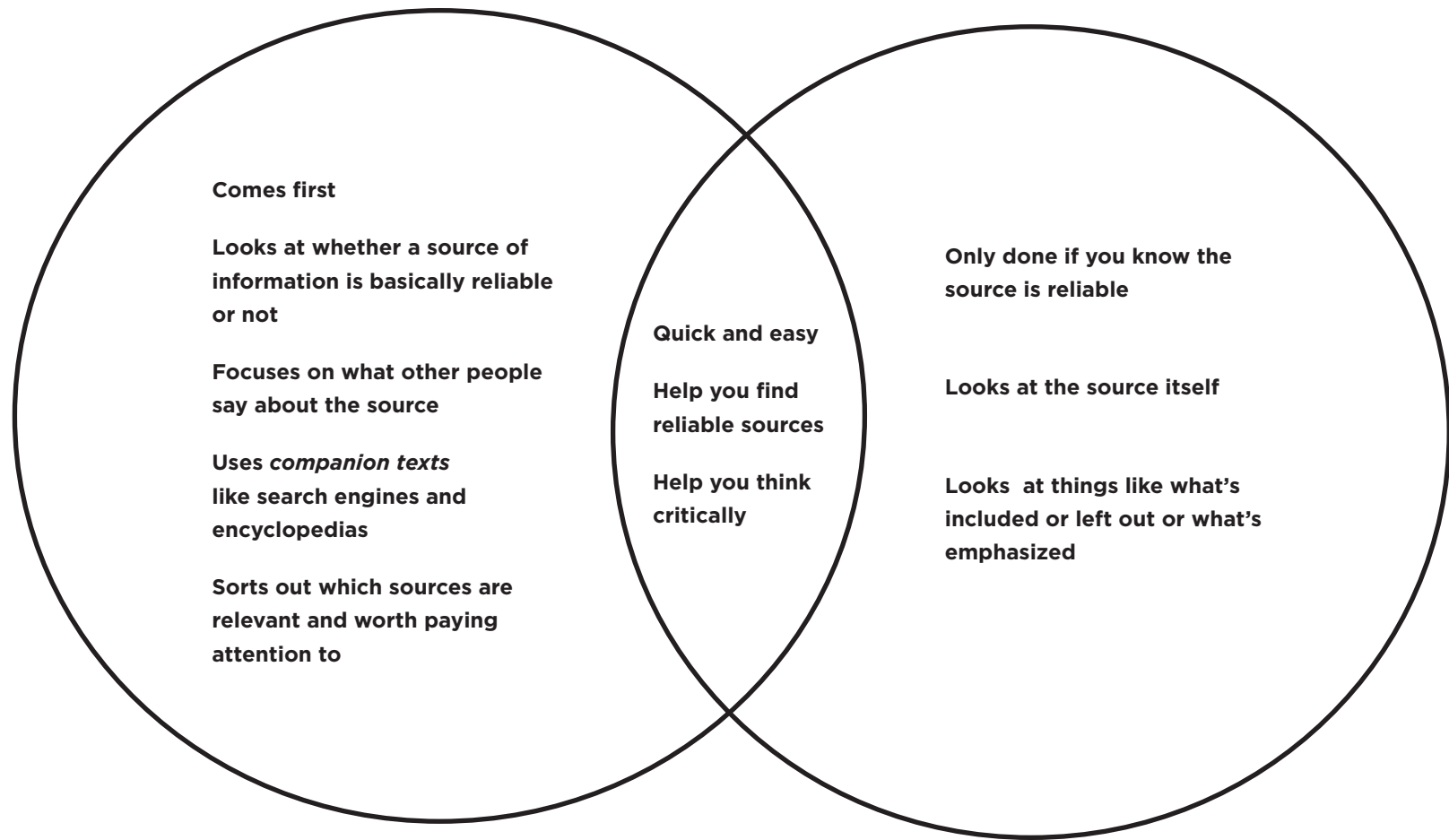
Companion Reading vs Close Reading

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Why is it called “companion reading?”

Why is it called “close reading?”



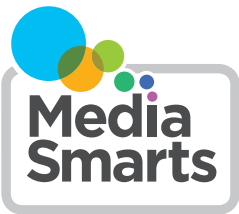
Why is it called “companion reading?”

Because other sources help you see if something is reliable

Why is it called “close reading?”

Because you look closely at a text to think critically about it

INFORMATION SORTING



What's included?
.....

STORY TOPIC: New treatment for a disease

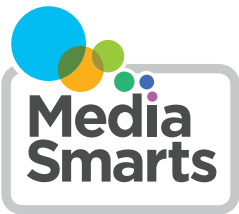
WHO SHOULD BE INCLUDED?	WERE THEY INCLUDED?
Doctors who treat the disease	
Scientists who developed the treatment	
Other scientists in the same field	
People living with the disease	
Were there any relevant sources you didn't predict?	If so, who were they?
Were any irrelevant sources included?	If so, who were they?

What’s included? - Teacher Answer Key

STORY TOPIC: New treatment for a disease

WHO SHOULD BE INCLUDED?	WERE THEY INCLUDED?
Doctors who treat the disease	Yes
Scientists who developed the treatment	Yes
Other scientists in the same field	No
People living with the disease	No
Were there any relevant sources you didn’t predict? Yes	If so, who were they? Spokesperson for a group that advocates for people living with the disease
Were any irrelevant sources included? Yes	If so, who were they? Celebrity

INFORMATION SORTING

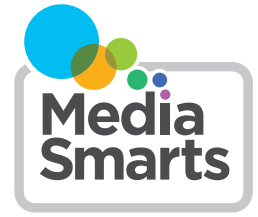


Prediction Grid

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Story headline: “Plastic substitute can biodegrade in seawater, scientists say”

WHO SHOULD BE INCLUDED?	WERE THEY INCLUDED?
Were there any relevant sources you didn’t predict?	If so, who were they?
Were any irrelevant sources included?	If so, who were they?

INFORMATION SORTING



Plastic substitute can biodegrade in seawater, scientists say

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On Thursday, September 22, scientists at the University of California San Diego reported in the journal *Science of the Total Environment* that a type of plastic can break down when immersed in seawater. This plastic is already used in foams and shoes.

The research team performed their experiments at the Ellen Browning Scripps Memorial Pier and Experimental Aquarium. They wrote that several types of bacteria and fungi stick to the plastic and eat it. The microbes had already made progress when the scientists checked the samples after four weeks in the water.

“Improper disposal of plastic in the ocean breaks down into microplastics and has become an enormous environmental problem,” said study co-author Stephen Mayfield, director of the California Center for Algae Biotechnology. “We’ve shown that it’s absolutely possible to make plastic products that also can degrade in the ocean.”

Humans deposit roughly 8 billion kg of plastic in the ocean each year, where it can be mistaken for food by marine organisms. Natural forces break the plastic into the small pieces that we call microplastic. Larger chunks form near-islands, such as the Great Pacific Garbage Patch.

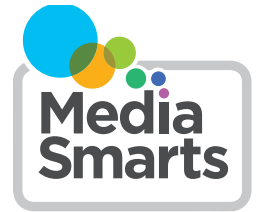
This type of plastic can be used to make flip-flops and parts of other shoes, which make up a large portion of the world’s plastic waste.

(From *Wikinews*)



OVERHEAD

INFORMATION SORTING



Titanic Search (Display Version)

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[Sinking of the RMS Titanic](#)

Wikipedia • RMS Titanic sank on 15 April 1912 in the North Atlantic Ocean. The largest ocean liner in service at the time, Titanic was four days into her maiden voyage from Southampton to New York City, with an estimated 2,224 people on board when she struck an iceberg at 23:40 on 14 April.

(LOST FOOTAGE) Real Titanic Sinking 1912 (RARE)



George Franco
14K subscribers

Subscribe

193



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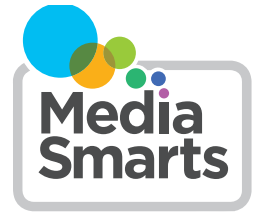
Clip

Save



OVERHEAD

INFORMATION SORTING



Titanic Search (Print Version)

.....



[Sinking of the RMS Titanic](#)

Wikipedia • RMS Titanic sank on 15 April 1912 in the North Atlantic Ocean. The largest ocean liner in service at the time, Titanic was four days into her maiden voyage from Southampton to New York City, with an estimated 2,224 people on board when she struck an iceberg at 23:40 on 14 April.

Titanic Real Footage: Leaving Belfast for Disaster (1911-1912) | British Pathé



British Pathé
3.27M subscribers

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88K



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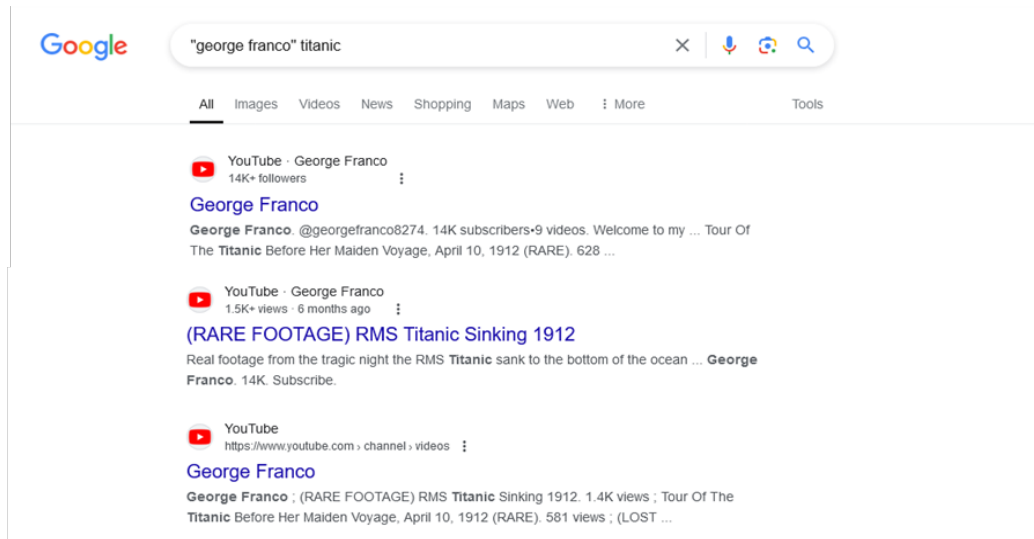


INFORMATION SORTING



Titanic Search (Print Version)

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1. Does the source know about the topic?
2. Do they have a process for making sure information is accurate and correcting mistakes?
3. Do they have a motivation to give you accurate information?

INFORMATION SORTING

The screenshot shows a Google search for "british pathe". The search bar is at the top with the Google logo on the left and search controls on the right. Below the search bar are tabs for "All", "Images", "Videos", "News", "Shopping", "Maps", "Books", and "More". The "All" tab is selected. The search results are displayed below the tabs. On the left, there is a result for "British Pathé" with a logo, the URL "https://www.britishpathe.com", and a description: "British Pathe, the world's leading multimedia resource with a history stretching back over a century. The finest and most comprehensive archive of fabulous ...". Below this result is a search bar with the text "Results from britishpathe.com" and a magnifying glass icon. To the right of the search bar are three links: "Search", "Footage", and "Licensing", each with a brief description. On the right side of the search results, there is a knowledge panel for "Pathé News". The panel includes a logo, the name "Pathé News", and the text "Production company". Below this is a link to "britishpathe.com". The panel also contains a paragraph of text about Pathé News, followed by a section "Films produced:" listing "The Hand of Night" and "The Stolen Airliner", and a "MORE" link. At the bottom of the panel, it says "Founder: Charles Pathé" and "Founded: December 1910".

Google

british pathe

All Images Videos News Shopping Maps Books More Tools

British Pathé
https://www.britishpathe.com

British Pathé – Explore the world's finest newsreel archives
British Pathe, the world's leading multimedia resource with a history stretching back over a century. The finest and most comprehensive archive of fabulous ...

Results from britishpathe.com

Search
British Pathe, the world's leading multimedia resource with a ...

Footage
British Pathe, the world's leading multimedia resource with a ...

Licensing
Fees are calculated per second of footage used (there is a ...)

Pathé News
Production company

[britishpathe.com](https://www.britishpathe.com)

Pathé News was a producer of newsreels and documentaries from 1910 to 1970 in the United Kingdom. Its founder, Charles Pathé, was a pioneer of moving pictures in the silent era. The Pathé News archive is known today as "British Pathé". Its collection of news film and movies is fully digitised and available online. [Wikipedia](#)

Films produced: [The Hand of Night](#), [The Stolen Airliner](#), [MORE](#)

Founder: [Charles Pathé](#)

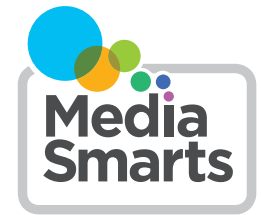
Founded: December 1910

1. Does the source know about the topic?
2. Do they have a process for making sure information is accurate and correcting mistakes?
3. Do they have a motivation to give you accurate information?

INFORMATION SORTING

Titanic Search (Display Version)

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A screenshot of a Google search results page for the query "george franco" titanic. The search bar at the top shows the query and icons for voice search, image search, and a magnifying glass. Below the search bar are tabs for All, Images, Videos, News, Shopping, Maps, Web, and More, with 'All' selected. The results are filtered to show YouTube content. The first result is a channel named 'George Franco' with 14K+ followers. The second result is a video titled '(RARE FOOTAGE) RMS Titanic Sinking 1912' with 1.5K+ views and 6 months ago. The third result is another video titled '(RARE FOOTAGE) RMS Titanic Sinking 1912' with 1.4K views.

Google "george franco" titanic X Voice Search Image Search

All Images Videos News Shopping Maps Web More Tools

YouTube · George Franco
14K+ followers

George Franco

George Franco. @georgefranco8274. 14K subscribers•9 videos. Welcome to my ... Tour Of The Titanic Before Her Maiden Voyage, April 10, 1912 (RARE). 628 ...

YouTube · George Franco
1.5K+ views · 6 months ago


(RARE FOOTAGE) RMS Titanic Sinking 1912

Real footage from the tragic night the RMS Titanic sank to the bottom of the ocean ... George Franco. 14K. Subscribe.




YouTube
<https://www.youtube.com/channel/UC...> videos

George Franco


George Franco ; (RARE FOOTAGE) RMS Titanic Sinking 1912. 1.4K views ; Tour Of The Titanic Before Her Maiden Voyage, April 10, 1912 (RARE). 581 views ; (LOST ...



british pathe

X |   

All Images Videos News Shopping Maps Books ⋮ More Tools



British Pathé
<https://www.britishpathe.com>

British Pathé – Explore the world's finest newsreel archives

British Pathe, the world's leading multimedia resource with a history stretching back over a century. The finest and most comprehensive archive of fabulous ...

Results from britishpathe.com

Search


British Pathe, the world's leading multimedia resource with a ...

Footage


British Pathe, the world's leading multimedia resource with a ...

Licensing

Fees are calculated per second of footage used (there is a ...



Pathé News
Production company

 britishpathe.com

Pathé News was a producer of newsreels and documentaries from 1910 to 1970 in the United Kingdom. Its founder, Charles Pathé, was a pioneer of moving pictures in the silent era. The Pathé News archive is known today as "British Pathé". Its collection of news film and movies is fully digitised and available online. [Wikipedia](#)

Films produced: [The Hand of Night](#), [The Stolen Airliner](#), [MORE](#)

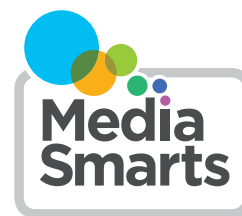
Founder: [Charles Pathé](#)

Founded: December 1910

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PAGE 2 OF 2

INFORMATION SORTING



Information Sorting Record

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Question:

Answer:

Where did you find the answer?

How did you find out the source was reliable?

How does this answer help you get the whole story?

INFORMATION SORTING

INFORMATION SORTING FLOWCHART

