Evaluating News
Teacher Guide

www.bsd.education

Alex:

Hey Kenzo, I need to do a research paper on a famous explorer. I went to a few different websites, and some of the information was different from one site to another. I am more confused than I was before I started.

Kenzo:

I understand Alex. There is so much information online but how do you know what is real and what is fake?

Alex:

I don't know. I can't figure out what information I should use and which I shouldn't use.

Kenzo:

Unfortunately Alex, it can be challenging. However, if you act like an investigator, you can find clues that will help you determine if the information is real.

Alex:

Cool, an investigator. That sounds like fun. Can you teach me?

Kenzo:

Of course! But before we begin…….

Learning Objectives

Skills

- Learn reasons that people put false or misleading information on the Internet.

- Learn criteria for differentiating fake, questionable, and credible news.

- Practice evaluating the credibility of information found on the Internet.

- Learn and practice writing a string.

- Learn and practice writing an array.

- Create a quiz game based on digital footprints.

Tools

- HTML

- JS

- BSD Education Online

Before We Begin

Let's take a look at a Website called the Endangered Tree Octopus.

Go to your BSD Education classroom and find the lesson titled The Endangered Tree Octopus.

The Endangered Tree Octopus
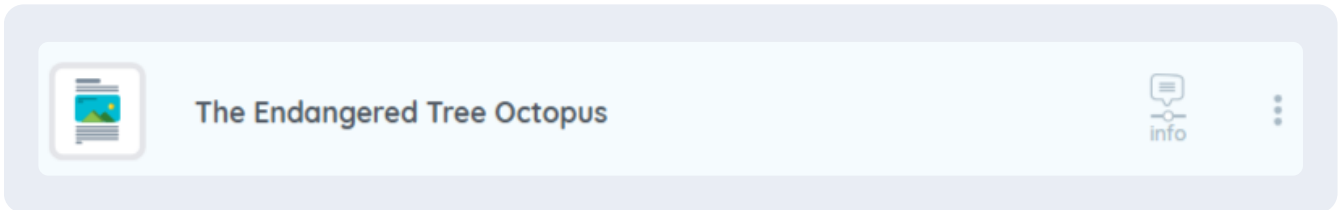
First, take a close look at the website.

Then click on the second link provided for further information.

Now decide if the site is real or fake and explain and provide evidence for your decision.

Example response:
I think the website about the endangered tree octopus is **fake**. Here's why:

1 **Tree octopuses don't make sense** – Octopuses are animals that live in the water, like oceans or lakes. They have gills to breathe underwater, so they couldn't survive in trees on land.

2 **The photos look weird** – The pictures of the "tree octopus" look like someone just put a regular octopus on a tree branch. It looks out of place and not natural.

3 **It's not a real animal** – I looked up "tree octopus" on other websites, and there's no information about it being a real species. If it was a real animal, it would be mentioned in science books or official websites like National Geographic.

4 **The website's tone is silly** – The website talks about a "Pacific Northwest Tree Octopus" like it's something people need to save, but it also includes links to strange topics like Bigfoot and aliens. That makes the website less believable.

5 **No scientific sources** – A real website about endangered animals would have facts, research, and sources from scientists or wildlife experts. This site doesn't have any of that.

Why Do People Create Fake Information Online?

Not everything you see online is true. Sometimes, people create fake or misleading information for different reasons. Here's why:

1. To Entertain (Hoaxes or Satire)

Some websites or stories are created just for fun! These are called **hoaxes** or **satire**. They often look like real news but are meant to be funny or make people laugh.

- **Example:** The Tree Octopus website was created to teach people about fake news while making them smile.
- **Tip:** Always check if a story seems too strange or silly to be true. It might just be for entertainment.

2. To Deceive (Scams or Clickbait)

Some people create fake websites or articles to trick others. They might do this to steal personal information, get you to click on their ads, or sell you something fake.

- **Scams:** These websites want your money or personal information. For example, a site might pretend you've won a prize but ask for your credit card details.
- **Clickbait:** These are headlines designed to make you click, like "Scientists Discover Secret to Living Forever!" When you click, it's often just an ad or fake news.
- **Tip:** Be cautious of things that seem too good to be true or demand personal information.

3. To Persuade (Bias or Propaganda)

Some fake news is created to make you believe something or change your opinion. This is called **bias** or **propaganda**. It often happens with political topics or big events.

- **Bias:** News that shows only one side of a story to make you agree with them.
- **Propaganda:** Articles or websites that use emotions (like fear or anger) to convince you of something.
- **Tip:** Ask yourself: Is this story trying to make me feel a certain way? What evidence does it show?

Teaching Criteria for Evaluating Credibility

Now that we know why people create fake or misleading information online, it's time to learn how we can figure out if something is trustworthy. We'll use a simple method called the **REAL Test** to help us evaluate the credibility of information we find online.

Introducing the REAL Test

The **REAL Test** stands for four important things to check when deciding whether a website or article is trustworthy. Let's break them down:

1 Reliable

- **Question to ask:** Is the source trustworthy? Is it known for good information?
- **What it means:** A reliable source is one that is known for providing accurate and truthful information. It could be a well-known newspaper, a respected organization, or a university.
- **Example:** Websites like National Geographic or The New York Times are usually reliable because they have a long history of providing facts.

2 Evidence

- **Question to ask:** Does it provide facts, data, or references to support its claims?
- **What it means:** A credible source will show evidence to back up its claims. This could be facts, statistics, research studies, or expert opinions.
- **Example:** If an article says, "Eating apples makes you smarter," it should provide research or data from scientists to support that statement.

3 Author

- **Question to ask:** <u>Who created it? Are they an expert, organization, or credible source?</u>
- **What it means:** The person or group who wrote the article or created the website should be a trusted expert in the subject. If you don't know who made the content, it's harder to trust it.
- **Example:** A news article about climate change written by a scientist or a climate research organization is more credible than one written by someone with no expertise in the field.

4 Logic

- **Question to ask:** <u>Does it make sense? Are there errors or things that seem suspicious?</u>
- **What it means:** Check if the information makes sense. Are there spelling mistakes? Are the facts clear, or does the story seem too crazy to be true?
- **Example:** If an article says, "A new tree octopus has been discovered," but there are no real facts or scientific sources to back it up, it probably doesn't make sense.

Activity Zone

Let's practice using the **REAL Test** with the <u>All About Explorers</u> website. We'll look at parts of this website together to evaluate whether it's credible.

Go to your BSD Education classroom and find the lesson titled All About Explorers

All About Explores   info
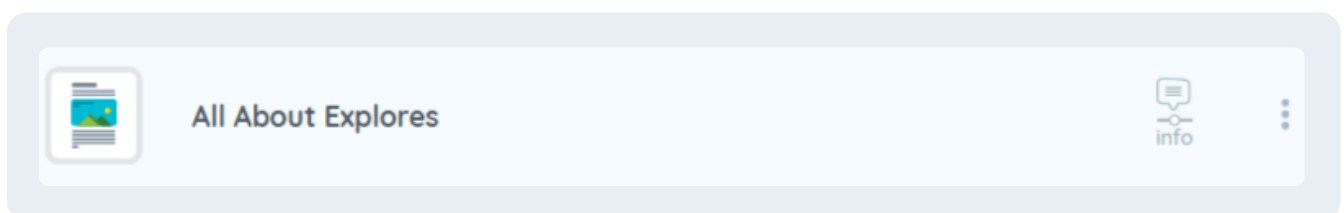
First, choose an explorer to research.

Click on the explorer and take a close look at the webpage.

Now using the REAL Test, decide if the site is real or fake.

Example response:

Reliable

Question to ask: Is the source trustworthy? Is it known for good information?

The website is **not trustworthy**. It is not known for giving good or reliable **information.**

Evidence: When looking at the content, it seems like some facts about explorers are wrong or very strange. For example, one page says Christopher Columbus used email, which is impossible because email didn't exist back then.

Evidence

Question to ask: Does it provide facts, data, or references to support its claims?

No, it does not provide real facts, data, or references.

Evidence: Many of the "facts" are clearly made up or silly, like saying explorers used modern technology like phones or cars. Real sources would include references to books, research, or historical records, but this website does not.

Author

Question to ask: Who created it? Are they an expert, organization, or credible source?

The creators of the site are **not experts or a credible source**.

Evidence: The website was made for teachers to show students how to spot fake or unreliable sources. It's actually meant to teach people to **not trust everything they read online**. The authors are not historians or professionals in exploration history.

Logic 💡

Question to ask: Does it make sense? Are there errors or things that seem suspicious?

No, it does not make sense, and there are many suspicious things.

Evidence: The website says things that are obviously false like explorers using computers or airplanes. That's not logical because those things weren't invented during the time of exploration. It also has a silly tone, which makes it seem more like a joke than a serious website.

1 Reliable

- The website is unknown, and it doesn't come from a trusted source.
- It doesn't have a reputation for sharing accurate information.

2 Evidence

- There are no real facts or scientific studies to support the idea of a tree-dwelling octopus.
- The website does not link to any credible sources like experts or researchers.

3 Author

- The website is created by a made-up organization with no real name or contact information.
- There's no expert or credible person behind the content.

4 Logic

- The idea of an octopus living in trees is not logical because octopuses live in the ocean, not in forests.
- There are no photos or real evidence to prove the story.

By using the **REAL Test**, we can easily see that the Pacific Northwest Tree Octopus website is not credible! It doesn't meet the criteria for being a reliable, evidence-based, logical source, and there is no expert behind the content.

Now that we've practiced the REAL Test together, you can use it anytime you find information online to help you decide if it's true or not!

Quick Check

Q1. What does the "Evidence" criterion of the REAL Test ask you to look for?

    A. Whether the source is well-known.

    B. Whether the information is logical.

    C. Whether the source provides facts, data, or references to support its claims.

    D. Whether the website is funny or entertaining.

Q2. If a website looks suspicious and there are many spelling mistakes, which part of the REAL Test would this affect?

    A. Reliable

    B. Logic

    C. Evidence

    D. Author

Q3. What does the "Author" criterion of the REAL Test focus on?

    A. Whether the website is easy to read.

    B. Whether the article is entertaining.

    C. Who created the content and whether they are an expert or credible source.

    D. Whether the information is funny or interesting.

Q4. What should you do if an article makes you feel strongly emotional (angry, afraid, or excited)?

    A. Trust the article immediately because it's making you feel strongly.

    B. Share the article with friends to get their opinion.

C. Question the article and check if it is biased or using propaganda.

D. Ignore the article because emotions are always wrong.

Q5. What does the "Evidence" criterion of the REAL Test ask you to look for?

A. Whether the source is well-known.

B. Whether the information is logical.

C. Whether the source provides facts, data, or references to support its claims.

D. Whether the website is funny or entertaining.

Planning a quiz maker game

Alex:
This is going to be very helpful, thank you so much Kenzo. Hmmm, I wonder if there is a way to help my friends remember.

Kenzo:
We could make a game to quiz your friends but instead of using prompts and alerts we could make it interactive on a website.

Alex:
I love that idea! You will help me, right?

Kenzo:
Of course, you know I will. Go to BSD Education's Platform to take a look at an example that I made.

Step 1: Introduction

Objective: A quiz is a game to check your knowledge on a topic or subject. Let's make a fun quiz using code!

In this project, we will learn how to create a multiple-choice quiz with three questions and four answer options on any topic or subject of your choice.
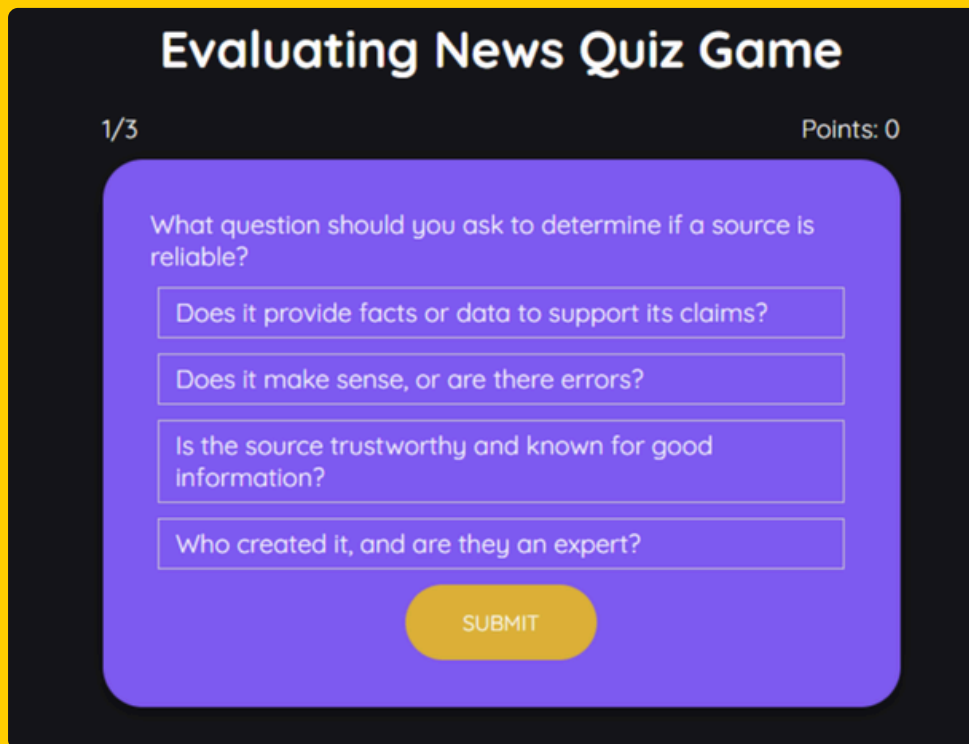
Activity Zone

Planning Document

Let's start by planning out your quiz game. Here is a copy of a planning document that you can use to create your game.

Quiz Maker Game Planning Document Example

Title of the game <h1>

<h1>Evaluating News Trivia Game</h1>

Question 1

"What question should you ask to determine if a source is reliable?"

Question 1 answers
Be sure to mark the correct answer with a *

["Does it provide facts or data to support its claims?", "Does it make sense, or are there errors?", "**Is the source trustworthy and known for good information?**", "Who created it, and are they an expert?"]

Question 2

"What should you check when evaluating the logic of information?"

Question 2 answers
Be sure to mark the correct answer with a *

["If the author has a popular social media following.", "**Whether the information makes sense and has no obvious errors.**", "If the article is written in an entertaining style.", "Whether the source includes personal opinions."]

Question 3

"What makes an author trustworthy?"

Question 3 answers
Be sure to mark the correct answer with a *

["They write very long articles.", "**They are an expert or part of a credible organization.**", "They use a lot of pictures and stories in their work.", "They post frequently on social media."]

Step 2: Add a title to the quiz

First, let's add a quiz title, so the players can get an idea of what the questions are about before they play.
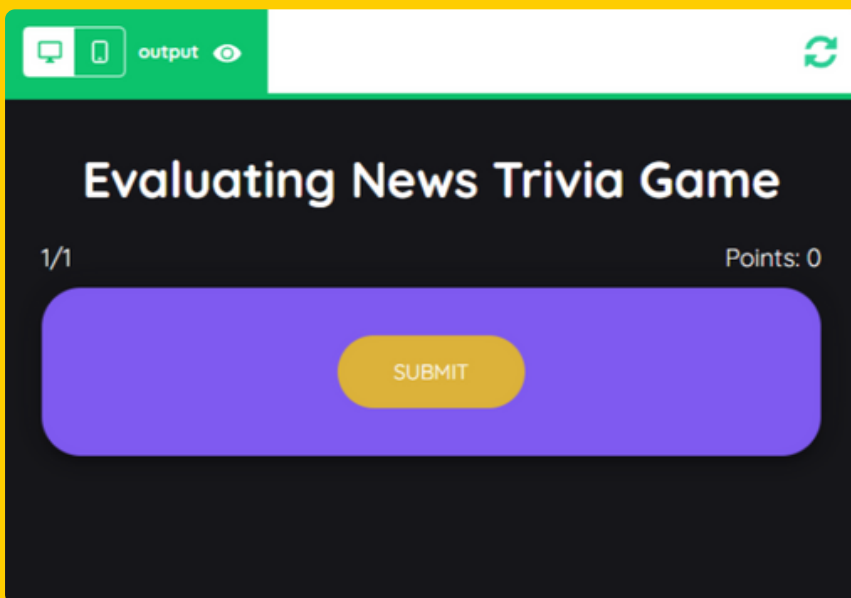
For example, your title can be:

- How to evaluate information online

Objective: On **HTML line 7**, create an <h1> element, and write the trivia game title between the tags.

```html
index.html          style.css          script.js
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <link rel="stylesheet" href="style.css">
5  </head>
6  <body>
7      <h1>Evaluating News Trivia Game</h1>
8
```

output

Evaluating News Trivia Game

1/1   Points: 0

SUBMIT

Step 3: Parts to each question

Each question in our trivia game must have 3 parts:

- The question **(questions)**
- A list of answers for the player to choose from **(answers)**
- The correct answer to the question **(correct)**

All these parts are stored inside a **variable** that we declared by using **const**.

const question2 holds all 3 parts to the question.

```
const question2 = {
    question: "What is the first thing you should do when evaluating news?",

    answers: ["Look for the copyright date", "Analyze the source", "Look for corroboration", "Read Closely"],

    correct: 3
};
```

const

array

string

Use the glossary search to learn more about const., array, and string.

What is it?

In JavaScript, `const` is used to declare (i.e. create) a **variable** that cannot be updated or re-declared.

This means that a variable declared with `const` cannot be assigned a new value, nor can we create a new variable with the same name.

js const

What is it?

A JavaScript **string** is a type of data, and refers to any plain text — such as letters, numbers, or symbols — that is placed in between a pair of quotation marks.

`js` data type - string

What is it?

A JavaScript `array` is a special type of variable that can store multiple values to a single variable.

`js` array

In the next step, we have declared a JavaScript variable called **question1** by using const on JavaScript line 5 to store the 3 parts to the first question. You will enter the question and the possible answers.

Quick Check

In the list below, which value is an example of a string in JavaScript?

A. False

B. 3.14

C. 'Coding is fun!'

D. [10, 20, 30]

Q2. Which keyword in JavaScript is used to declare a variable that cannot be reassigned once its value is set?

A. Let

B. Var

C. Const

D. Def

Q3. What JavaScript data type allows you to store multiple values in a single variable, accessed by an index?

A. Object

B. list

C. array

D. set

Create questions 1-3 with answers

Step 4: Create Question 1

Let's start by adding your first question to the question array.

Objective 1: On **JS line 6**, add **question 1** as a string.

Objective 2: On **JS line 10**, add **question1** to the array.

Note! Do not forget the comma at the end as we have not finished creating the questions!

```
html  index.html      css  style.css      js  script.js

1   let score = 0;
2   // Creating questionss and answers
3   //************************************************
    *******************************
4   // Unlocks for questions and answers
5   const question1 = {
6       question: "What question should you ask to
    determine if a source is reliable?",
7   };
8
9   // create an array of objects
10  const questions = [question1 ,];
```

output

Evaluating News Trivia Game

1/1   Points: 0

What question should you ask to determine if a source is
reliable?

SUBMIT

Step 5: Add answer choices to question 1

Now, let's add a list of answer choices for your player to choose from.

Let's organize your answer choices into an array. For example,

```
const question1 = {

    question: "What is the first thing you should do when evaluating news?",

    answers: ["Look for the copyright date", "Analyze the source", "Look for corroboration", "Read Closely"],

};
```

Objective: On **JS line 7**, add an array of **4 answer choices** for the player to choose from. Your answer choices should be a string.

```
html  index.html      css  style.css      js  script.js

3   //*********************************************************
    ******************************
4   // Unlocks for questions and answers
5   const question1 = {
6       question: "What question should you ask to
    determine if a source is reliable?",
7       answers:  ["Does it provide facts or data to
    support its claims?", "Does it make sense, or are
    there errors?", "Is the source trustworthy and
    known for good information?", "Who created it,
    and are they an expert?"],
8   };
```
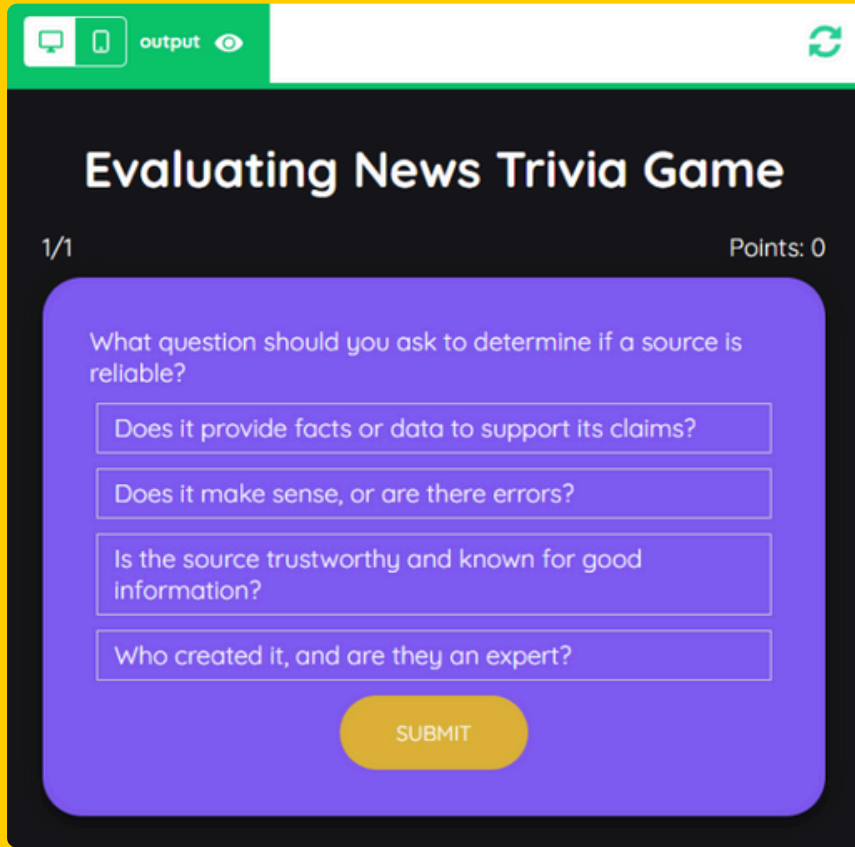
Step 6: Identify the correct answer for question 1

Finally, let's identify the correct answer.

Since we stored all the answers as an array, we can select the correct answer using the index position.

For example, if the answer choices were **["Look for the copyright date", "Analyze the source", "Look for corroboration", "Read Closely"]** and the correct one is **"Read Closely"**, the correct answer index would be **3**.

Note that, in an array, the index for the first item is 0, the second item is 1 and so on.

Objective: On **JS line 8**, identify the index for the **correct answer** to the question.

```
html   index.html       css   style.css        js   script.js

1    let score = 0;
2    // Creating questionss and answers
3    //***************************************************
     ******************************
4    // Unlocks for questions and answers
5    const question1 = {
6        question: "What question should you ask to
     determine if a source is reliable?",
7        answers: ["Does it provide facts or data to
     support its claims?", "Does it make sense, or are
     there errors?", "Is the source trustworthy and
     known for good information?", "Who created it,
     and are they an expert?"],
8        correct: 2
9    };
```

output

Evaluating News Trivia Game

1/1   Points: 0

What question should you ask to determine if a source is reliable?

Does it provide facts or data to support its claims?

Does it make sense, or are there errors?

Is the source trustworthy and known for good information?

Who created it, and are they an expert?

SUBMIT

Quick Check

Find the errors on line 2 and 3 in the example below:

```
Line 1:        const question1 = {

Line 2:        question: Which one is the largest animal?,

Line 3:        answers: [Ant, Elephant, Dog, Cat],

               };
```

Line 2: question: "Which one is the largest animal?"

Line 3: answers: ["Ant", "Elephant", "Dog", "Cat"]

Step 7: Add question 2

We have completed all the steps in creating a question!

Now, let's create the second question by using everything we've learned in the steps before.

Objective 1: On **JS line 12**, add **question 2**.

Objective 2: On **JS line 13**, add an array of **4 answer choices**.

Objective 3: On **JS line 14**, identify the index for the **correct answer** to **question 2**.

Objective 4: On **JS line 18**, add the variable **question2** to the array.

```javascript
10
11  const question2 = {
12      question: "What should you check when
    evaluating the logic of information?",
13      answers: ["If the author has a popular
    social media following.", "Whether the
    information makes sense and has no obvious
    errors.", "If the article is written in an
    entertaining style.", "Whether the source
    includes personal opinions."],
14      correct: 1
15  };
16
17  // create an array of objects
18  const questions = [question1, question2];
19
```

Evaluating News Trivia Game

2/2   Points: 40

What should you check when evaluating the logic of information?

If the author has a popular social media following.

Whether the information makes sense and has no obvious errors.

If the article is written in an entertaining style.

Whether the source includes personal opinions.

NEXT QUESTION

Step 8: Add question 3

Great job!

Next, let's create the third question by using everything we've learned in the steps before.

Objective 1: On **JS line 18**, add **question 3**.

Objective 2: On **JS line 19**, add an array of **4 answer choices**.

Objective 3: On JS line 20, identify the index for the **correct answer** to **question 3**.

Objective 4: On **JS line 24**, add the variable **question3** to the array.

```
html   index.html      css   style.css      js   script.js

16
17   const question3 = {
18       question: "What makes an author
     trustworthy?",
19       answers: ["They write very long articles.",
     "They are an expert or part of a credible
     organization.", "They use a lot of pictures and
     stories in their work.", "They post frequently on
     social media."],
20       correct: 1
21   };
```
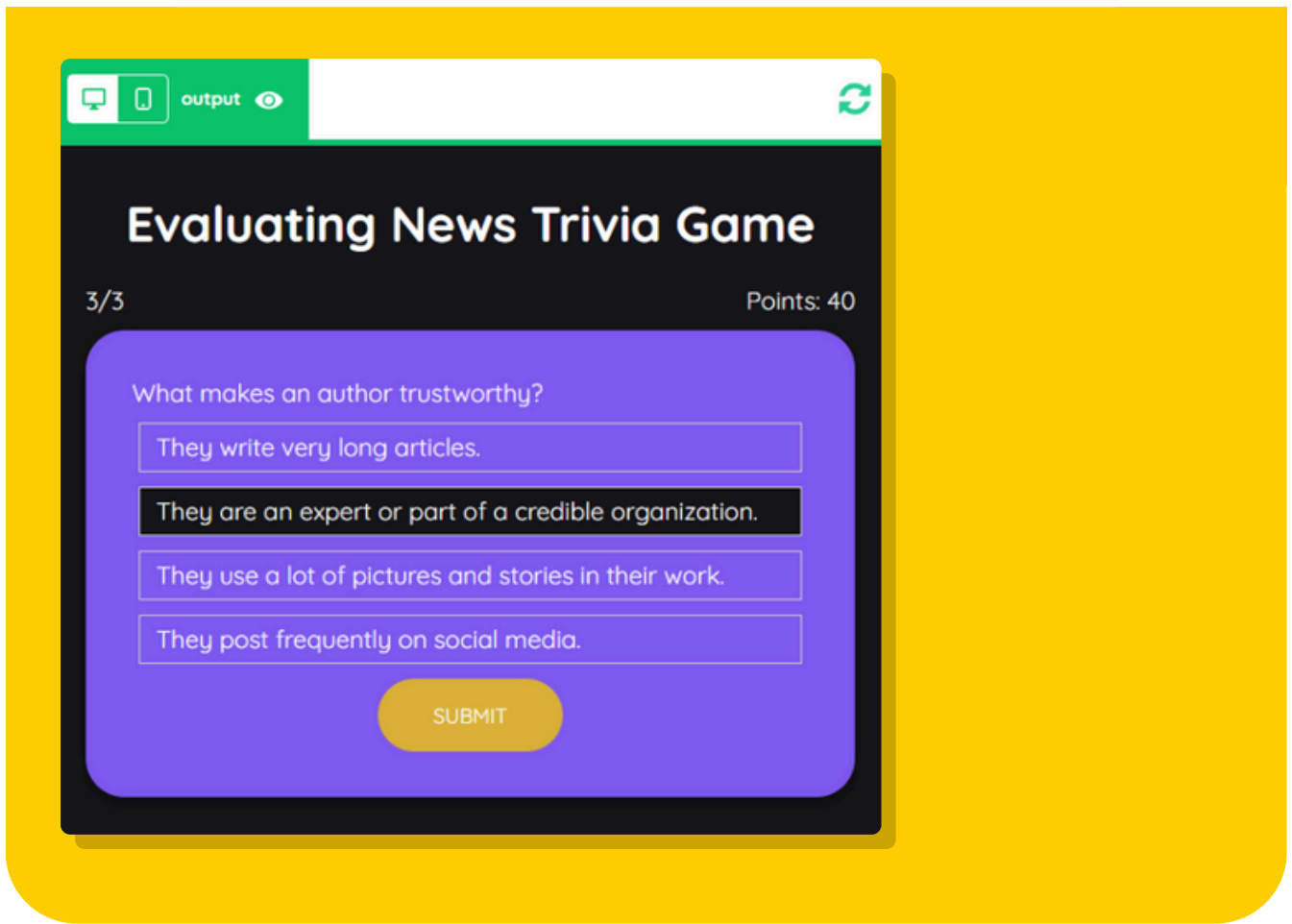
Summing Up - Step 9

Here's a concise bulleted summary for the workbook:

• Reasons for Fake Information

- To entertain (hoaxes or satire)
- To deceive (scams or clickbait)
- To persuade (bias or propaganda)

• The REAL Test

Reliable
Is the source trustworthy?

Evidence
Does it provide facts or data?

Author
Who created it? Are they credible?

Logic
Does it make sense and avoid errors?

• Key Takeaways

- Question information that seems strange or too good to be true.
- Use the REAL Test to evaluate online information.
- Be aware of the reasons behind misleading content (entertainment, deception, persuasion).

• A string

is a type of data in JavaScript that represents raw text, we used it throughout this project to define the questions and answers.

• An array

was used to store the full list of questions, as well as answers for each question.
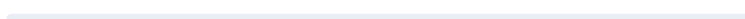
Let's **Build Something Different** Together

info@bsd.education
www.bsd.education
@bsdeducation