**Lesson Plan - Sustainability: Flexbox**

**Lesson Plan:**

Sustainability Flexbox

**Objective:**

Learners will create a sustainability website using HTML and CSS. They will understand the importance of sustainability and how to design a responsive layout for displaying information and images.

**Duration:**

1-2 class sessions (can be adjusted based on the learners' proficiency)

**Materials:**

* Web browser (e.g., Google Chrome, Mozilla Firefox)
* Visual Studio Code (offline text editor)

**Lesson Plan Outline:**

**Introduction**

* Introduce the concept of sustainability and its significance in protecting the environment.
* Discuss the importance of raising awareness about sustainability through digital platforms.
* Explain that learners will create a sustainability website to share information and resources.

**Webpage Logic**

**Web Development:**

**HTML Structure:**

* - Explain the structure of the HTML code provided.
* - Discuss the purpose of each HTML element, such as headings, paragraphs, links, and images.
* - Emphasize the use of `<div>` elements to create sections and organize the content.
* - Highlight the use of `<a>` elements and the `href` attribute to link to external resources.

**CSS Styling:**

* - Discuss the CSS styles provided in the code.
* - Explain how the styles are applied to different elements, such as the body, headers, images, and links.
* - Demonstrate how to use CSS properties like `background-color`, `color`, `padding`, and `margin` to customize the appearance of the website.
* - Explain the use of media queries to create a responsive layout for different screen sizes.

**Image Styling:**

* - Discuss the image styling in CSS.
* - Explain how the `filter` property is used to apply grayscale effect to the images.
* - Demonstrate the `:hover` pseudo-class to remove the grayscale effect on image hover.

**Responsive Design:**

* - Explain the concept of responsive design and its importance for websites.
* - Discuss the use of media queries to adjust the layout based on screen sizes.
* - Show the provided media queries in the CSS code and explain their functionality.
* - Demonstrate how the website layout changes when viewed on different devices or screen sizes.

**Starter Project:**

NA

**Finished Project:**

<https://drive.google.com/drive/folders/1_7vojD_tMYn-eBYcFGM4elO3l5iu4uHV?usp=sharing>

**References:**

* MDN: Responsive Web Design Basics - <https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Responsive_Design>
* CSS-Tricks: A Complete Guide to Flexbox - <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>
* CSS Grid Layout - <https://css-tricks.com/snippets/css/complete-guide-grid/>

**Homework:**

- Encourage them to do research on a specific category in sustainability.

- Assign learners to research and create their own sustainability flexbox webpage.

**Note:**

The lesson plan can be adjusted based on the learners' prior knowledge and proficiency level in HTML, CSS, and JavaScript. The timings provided are approximate and can be modified as per the classroom requirements.