NAME _____

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WEB & WIRELESS TECH

Tim Berners-Lee

The Web's Architect

Tim Berners-Lee: Weaving the World Wide Web

Sir Tim Berners-Lee, born in 1955, is a British computer scientist who invented the World Wide Web. In 1989, while working at CERN, a physics laboratory in Switzerland, he wrote a proposal for a system to share and link documents across computers. By the end of 1990 he had built the first web browser and the first web server, and he created the world's first website, info.cern.ch.

The web runs on three core technologies that Tim designed. HTML (HyperText Markup Language) is the language used to write web pages. A URL (Uniform Resource Locator) is the unique address of each page. HTTP (HyperText Transfer Protocol) is the set of rules computers follow to request and send pages. Special links called hyperlinks let readers jump from one page to another with a single click.

It is important not to confuse the World Wide Web with the Internet. The Internet is the global network of connected computers, the physical infrastructure of cables, routers, and signals. The Web is a system of linked pages and documents that runs on top of the Internet. Tim Berners-Lee did not invent the Internet; he invented the Web that uses it.

In 1993, Tim and CERN made the web's technology free for everyone, with no royalties or fees. This decision let the web grow explosively around the world. In 1994 he founded the World Wide Web Consortium (W3C) to set common standards for the web, and he later launched projects to protect web privacy and promote open data. He was knighted by the Queen for his work.

Part 1 · Reading Comprehension

1. Explain the difference between the Internet and the World Wide Web.

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2. What are the three core technologies of the web, and what does each one do?

3. What did Tim and CERN do in 1993, and why did it matter?

4. Why did Tim found the World Wide Web Consortium (W3C) in 1994?

Part 2 · Critical Thinking

People often say Tim Berners-Lee 'invented the Internet,' but that is not accurate. Why is the distinction between inventing the Web and inventing the Internet important?

Part 3 · STEM Challenge

Tracing a Web Request

When you open a web page, your web browser and a web server 'talk' to each other using Tim's technologies. Follow the steps of getting a page and name the technology involved in each one.

1. You type an address like https://info.cern.ch into your browser. What is this address called?

2. Your browser uses a set of rules to send a request asking the web server for that page. What are these rules called?

3. The web server finds the page and sends it back, written in a special language the browser can display. What language is it?

4. The page contains clickable links that take you to other pages. What are these links called?