# ChatGPT: Post Objects with Messages

Does javascirpt postMessage send objects or just strings?

The postMessage method in JavaScript can send **both strings and objects**, but there are some important details to keep in mind:

**1. Sending a String**

The most basic way to use postMessage is by sending a string:

iframe.contentWindow.postMessage("Hello, iframe!", "https://example.com");

On the receiving page:

window.addEventListener("message", function(event) {

console.log(event.data); // Outputs: "Hello, iframe!"

});

**2. Sending an Object**

You can also send JavaScript objects using postMessage. **The object is automatically serialized (converted to JSON) and deserialized**.

const messageData = { action: "scroll", position: 500 };

iframe.contentWindow.postMessage(messageData, "https://example.com");

On the receiving page:

window.addEventListener("message", function(event) {

console.log(event.data.action); // Outputs: "scroll"

console.log(event.data.position); // Outputs: 500

});

**3. Security Considerations**

* Always **specify the target origin** instead of using "\*" to prevent security vulnerabilities.
* If the message contains sensitive data, validate event.origin before processing.

Example of validating the sender:

window.addEventListener("message", function(event) {

if (event.origin !== "https://trusted-source.com") return;

console.log(event.data);

});

**4. Sending Complex Data (With Transferable Objects)**

For better performance, postMessage also supports **Transferable Objects**, like ArrayBuffer, which are moved instead of cloned.

Example:

const buffer = new ArrayBuffer(1024);

iframe.contentWindow.postMessage(buffer, "https://example.com", [buffer]);

🚀 **Summary:**

* ✅ **Strings** → Simple messages.
* ✅ **Objects** → JSON serialization.
* ✅ **Transferable Objects** → Faster data transfer.

Let me know if you need an example! 🎯