

# JQUERY QUICK REFERENCE

Selectors, DOM, events, AJAX, effects, traversal

## Selectors

### Basic Selectors

```
$( "p" ) // all <p> elements
$( ".btn" ) // class selector
$( "#main" ) // ID selector
$( "ul > li" ) // direct children
$( "input[type='text']" ) // attribute selector
```

### Common Selectors

```
$( "*" ) // All elements
$( "a, span" ) // Multiple selectors
$( ":first" ) // First matched element
$( ":last" ) // Last matched element
$( ":even" ) / $( ":odd" ) // Even/odd indexed elements
$( ":visible" ) / $( ":hidden" ) // Visibility filters
$( ":contains(text)" ) // Elements containing text
$( ":has(selector)" ) // Elements containing selector match
```

## DOM Manipulation

### Content & Structure

```
$( "#el" ).html( "<b>Bold</b>" ); // set inner HTML
$( "#el" ).text( "Plain text" ); // set text content
$( "#ul" ).append( "<li>New</li>" ); // add at end
$( "#ul" ).prepend( "<li>First</li>" ); // add at start
```

### Insert & Remove

```
$( "<p>Hello</p>" ).insertAfter( "#el" ); // insert after
$( "#div<p>".insertBefore( "#el" ); // insert before
$( "#el" ).remove(); // remove element from DOM
$( "#el" ).empty(); // remove all children
```

### Methods

```
.html() // Get/set inner HTML
.text() // Get/set text content
.append() / .prepend() // Add child at end/start
.after() / .before() // Insert sibling after/before
.wrap() // Wrap element with new parent
.clone() // Deep copy element
.replaceWith() // Replace element
```

## Events

### Binding Events

```
$( ".btn" ).on( "click", function () {
    $( this ).toggleClass( "active" );
} );
$( document ).on( "click", ".dynamic", handler ); // delegation
$( ".btn" ).off( "click" ); // remove handler
```

### Shorthand Methods

```
.click( fn ) // Click handler
.hover( fnIn, fnOut ) // Mouse enter/leave
.focus() / .blur() // Focus gained/lost
.change( fn ) // Value changed (input/select)
.submit( fn ) // Form submission
.keydown() / .keyup() // Keyboard events
```

### Document Ready

```
$( document ).ready( function () { /* DOM loaded */ } );
$( function () { /* shorthand */ } );
```

## Effects & Animation

### Show / Hide / Toggle

```
$( "#el" ).hide( 400 ); // hide with animation
$( "#el" ).show( 400 ); // show with animation
$( "#el" ).toggle(); // toggle visibility
$( "#el" ).fadeIn( 600 ); // fade in
$( "#el" ).slideDown( 400 ); // slide down
```

### Custom Animation

```
$( "#el" ).animate( {
    opacity: 0.5,
    left: "+=50px",
    height: "toggle"
}, 1000, function () { /* complete */ } );
```

### Effect Methods

```
.fadeIn() / .fadeOut() // Animate opacity
.fadeToggle() // Toggle with fade
.slideDown() / .slideUp() // Animate height
.animate( props, ms ) // Custom CSS animation
.stop() // Stop current animation
.delay( ms ) // Delay next queued effect
```

## AJAX

### Shorthand Methods

```
$.get( "/api/data", function( data ) { console.log( data ); } );
$.post( "/api/data", { name: "Alice" }, function( res ) {} );
$.getJSON( "/api/items", function( json ) {} );
$( "#el" ).load( "/fragment.html" ); // load HTML into element
```

### Full \$.ajax

```
$.ajax( {
    url: "/api/data",
    method: "POST",
    data: JSON.stringify( { key: "val" } ),
    contentType: "application/json",
    success: ( res ) => console.log( res ),
    error: ( xhr ) => console.error( xhr.status )
} );
```

### AJAX Options

```
url // Request URL
method // HTTP method (GET, POST, ...)
data // Data to send
dataType // Expected response type
contentType // Request content type
success / error // Callback functions
headers // Custom request headers
```

## Traversal

### Tree Navigation

```
$( "li" ).parent(); // direct parent
$( "li" ).parents( "ul" ); // all matching ancestors
$( "ul" ).children( "li" ); // direct children
$( "ul" ).find( ".active" ); // all matching descendants
$( "li" ).siblings(); // sibling elements
```

### Traversal Methods

```
.parent() / .parents() // Direct parent / all ancestors
.children() / .find() // Direct children / all descendants
.siblings() // All sibling elements
.next() / .prev() // Next/previous sibling
.closest( sel ) // Nearest ancestor matching selector
.first() / .last() // First/last in matched set
.eq( index ) // Element at index
.filter( sel ) // Reduce to matching elements
```

## Attributes & CSS

### Attributes

```
$( "img" ).attr( "src" ); // get attribute
$( "img" ).attr( "src", "new.jpg" ); // set attribute
$( "img" ).removeAttr( "title" ); // remove attribute
$( "input" ).prop( "checked", true ); // set property
```

### CSS & Classes

```
$( ".box" ).css( "color", "red" ); // set single style
$( ".box" ).css( { color: "red", fontSize: "14px" } ); // multi
$( "p" ).addClass( "highlight" );
$( "p" ).removeClass( "highlight" );
$( "p" ).toggleClass( "active" );
$( "p" ).hasClass( "active" ); // returns boolean
```

## Forms

### Values & Serialization

```
$( "input" ).val(); // get value
$( "input" ).val( "new value" ); // set value
$( "form" ).serialize(); // "name=Alice&age=30"
$( "form" ).serializeArray(); // [{ name, value }, ...]
```

### Form Selectors

```
$( ":input" ) // All form elements
$( ":checked" ) // Checked checkboxes/radios
$( ":selected" ) // Selected option elements
$( ":disabled" ) // Disabled elements
$( ":text" ) // Text inputs
```

## Utilities

### Array & Object Helpers

```
$.each( [ 1, 2, 3 ], function( i, val ) { /* iterate */ } );
$.each( obj, function( key, val ) { /* iterate object */ } );
$.extend( {}, defaults, options ); // merge objects
$.isArray( "b", [ "a", "b", "c" ] ); // returns 1 (index)
```

### Utility Methods

```
$.each( arr, fn ) // Iterate array or object
$.extend( target, ... ) // Merge objects (shallow)
$.isArray( val, arr ) // Index of value (-1 if missing)
$.isArray( obj ) // Check if array
$.trim( str ) // Remove leading/trailing whitespace
$.parseJSON( str ) // Parse JSON string
$.map( arr, fn ) // Transform array elements
```

## Common Patterns

### Chaining

```
$( "ul" )
    .find( "li" )
    .addClass( "item" )
    .first()
    .css( "font-weight", "bold" );
```

### Plugin Pattern

```
$.fn.highlight = function( color ) {
    return this.each( function () {
        $( this ).css( "background", color || "yellow" );
    } );
};
$( "p" ).highlight( "pink" );
```

## Conflict Resolution

```
// Avoid $ conflicts with other libraries
jQuery.noConflict();
jQuery( document ).ready( function ($) {
    $( ".btn" ).click( handler ); // $ safe inside
} );
```