# Video Editing with DaVinci Resolve worksheet with notes

## Part 1: Overview

1. **Knowing important video concepts**
	1. **\_\_\_\_\_show:** Video is slideshow of still images (frames) in quick succession
	2. **FPS:** 24 FPS is standard for live-action, but 30 FPS is okay;
	60+ FPS is better for animation or slow-mo live-action
	3. **Full HD resolution:** 1920 pixels wide by 1080 pixels high
2. **Exploring DaVinci Resolve**
	1. **Blackmagic**
	2. **Standard vs Pro**
	3. **Apps within app:** *Edit* and *Deliver* pages essential for general editing
3. **Understanding file management**
	1. **Database vs Project vs Timeline:**
	Database has Project(s), Project has Timeline(s)
	2. **Bins:** Customizable folders inside Projects
	3. **Best practices:** Store all media files in one location (computer) and have copies somewhere else (cloud server)
4. **Getting started**
5. **Exploring *Edit* interface**
	1. **Menu bar:**Has all actions, keyboard shortcuts (where applicable)
	2. **Panels (*Media Pool*, *Effects,* *Mixer*, *Inspector*)**
	3. **Preview**
	4. **Timeline (playhead vs skimmer):** Resolve doesn’t have skimmer for cursor
	5. **Tracks vs Clips:** Tracks are horizontal lanes containing clip(s)

## Part 2: Video Basics

1. **Importing & modifying primary video**
	1. **Zoom:** Frame dimensions stay fixed, but dimensions of shown image multiplied by input x-values (width) and y-values (height; x-/y-values linked by default
	2. **Rotation angle:** Rotate image clockwise/counterclockwise as needed/desired
2. **Proxies**
	1. **Purpose:** Lighter versions of videos used for editing to ease burden on computer
	2. **Setup (resolution, codec format, location):** Recommendation of half resolution, H.264 format, same location as media files
	3. **Generating:** Right-click and select action to generate proxy
	4. **Selecting:** Select prefer proxies from menu near top of preview area
3. **Understanding essential controls**
	1. **Playback**
	2. **Marking**
	3. **Zooming in/out**

**Quiz: Playback shortcuts**

1. **Play:** Spacebar or L
2. **Stop:** Spacebar or K
3. **Fast-forward:** (playing forward) L, (stopped) Shift + L
**Fast-rewind:**(rewinding) J, (stopped) Shift + J
4. **Move ahead one frame:** Right arrow or hold K + press L
**Move back one frame:** Left arrow or hold K + press J
5. **Skip to previous clip-start:** Up arrow
**Skip to next clip-end:** Down arrow

## Part 3: Audio Basics

1. **Modifying primary audio (dialogue)**
	1. **Track-level vs clip-level adjustments:** Clips within audio tracks might require separate adjustments
	2. **Volume slider vs *Normalize Audio Levels* function:** Rely on decibel (dB) values in *Mixer* panel; *Volume* value in *Audio* tab of Inspector panel represents change to volume
	3. **Ideal loudness:** Recommended peak/majority volume of –12 dB (+/- 3 dB)
2. **Importing & modifying alternative to primary audio (dialogue)**
	1. **Manual alignment vs *Auto-Align Clips* function:** *Auto-Align* function (only) useful for separate yet simultaneous recordings of same audio-source - select all files and *Auto-Align* by waveform; otherwise set markers on prominent sounds/phrases and click-drag to align
3. **Importing & modifying secondary audio (music)**
	1. **Fading in/out:** Point to top-left/-right corner of audio clip and drag polygon shape inward
	2. **Ideal loudness:** Recommended peak/majority volume of –24 dB (+/- 3 dB) or double magnitude of primary audio level as starting point

## Part 4: Cuts, Transitions, & Effects

1. **Cutting clips**
	1. **Edge-dragging vs cutting:** Blade tool allows cutting with cursor instead of playhead; keyboard shortcut creates cut at playhead for all (selected) tracks/clips (not locked and with Auto-Track Selector enabled)
	2. **Color-coding:** Useful for identifying clips of interest for later actions (deletion, effects, B-roll)
2. **Deleting clips**
	1. **Delete vs Ripple Delete:** Regular deletion preserves empty space; Ripple delete moves all (selected) tracks/clips (not locked with Auto-Track Selector enabled) leftward to occupy space
3. **Adding effects**
	1. **Transitions: Outside vs overlapping vs inside:** Transitions at ends of clips have outside/overlapping/inside options (*Transition* tab in *Inspector* panel); difference is start/end of effect
	2. **Titles:** Consider readability of text; if applicable use white text with black stroke (border)
4. **Adding secondary video/imagery**
	1. **Editing on canvas vs marking in/out:** Marking in/out of clip from *Media Pool* allows selected section (instead of entire clip) being added to canvas/timeline
	2. **Zoom:** Consider original resolution (dimensions) of image/clip; avoid zooming-in/expanding too much
	3. **Position:** Positive x-value moves image to right, positive y-value moves image upward
	4. **Crop**
	5. **Keyframes:** Click diamond icon next to attribute set keyframe/point-of-interest for said attribute; consider marking clip at given frame for easier reference

**5. Modifying clips**

1. **Speed:** Select *Ripple Timeline* for slowed-down/sped-up clip to expand/contract, but unlocked tracks affected; avoid slowing clips to anything below (equivalent of) 24 FPS
2. **Direction**
3. **Freeze-frame:** Shift + R; cannot freeze frames at very start or very end of clip

**6. Enhancing workflow**

1. **Copying & pasting attribute values:** Select exemplar clip, right-click selection, and select *Copy*; then select target clip(s), right-click selection, select *Paste Attributes* ..., and select desired category/categories
2. **Colour-coding clips:** Select clip(s), right-click selection, select Clip Color and select colour

**Quiz: Editing shortcuts**

1. **Set maker:** M
2. **Cut selected/selectable/unlocked clip(s):** Ctrl/Cmd + B or B (to select Blade tool) then click
3. **Mark-in clip in *Media Pool*:** I
4. **Mark-out clip in *Media Pool*:** O
5. **Ripple delete:** Shift + Backspaces or (if applicable) Delete

## Part 5: Handoff & Delivery

1. **Exporting Resolve files:** Accessible through *File* menu
	1. **Projects:**  Files with extension .DRP (DaVinci Resolve Project)
	2. **Timelines:** Files with extension .DRT (DaVinci Resolve Timeline)
	3. **Stills:**
2. **Importing Resolve files:** Accessible through *File* menu or ‘house’ icon in lower-right corner of interface; open after importing
3. **Re-linking media files:**
Project/Timeline files only reference linked specified media; opening Project/Timeline files imported to different computer requires re-linking media;
right-click ‘missing’ file(s) in *Media Pool* then select *Relink Media* action or click (red) chain icon
4. **Rendering video**
	1. **Resolution [and Frame rate]:** Recommended 1920 x 1080 pixels and 24 FPS (live-action), but avoid higher values than Timeline settings
	2. **Codec:** H.264
	3. **Other settings:** MP4 format for video, set Quality to Restrict to [80000] kb/s