

# Lesson Plan: Introduction to Dye Sublimation & Graduation Jacket Design

---

## Lesson Overview

**Grade Level:** High School Intro

**Duration:** 3–5 Days (Adjustable)

**Subject Areas:** Graphic Design, Visual Arts, Marketing, Science

---

## Learning Objectives

By the end of this lesson, students will be able to:

- Explain the science behind dye sublimation.
  - Demonstrate the dye sublimation printing and pressing process.
  - Compare color modes and image types (CMYK vs RGB, Vector vs Bitmap).
  - Use Adobe Photoshop and Illustrator for creating sublimation-ready designs.
  - Identify and export correct file types for production.
  - Understand how sublimation is used in marketing and product development.
  - Design a personalized graduation jacket for sublimation printing.
- 

## Day 1: The Science of Dye Sublimation

### Topics Covered:

- What is sublimation? (solid → gas without becoming liquid)
- Dye sublimation process:
  - Creating the design
  - Printing with sublimation ink
  - Heat pressing onto polyester/poly-coated surfaces

### Activities:

- Watch a short video of the sublimation process in action
- In-class demo or virtual simulation of a press (if available)
- Group discussion: What makes sublimation different from screen printing or DTG?

### **Materials:**

- Projector/video
  - Sublimation samples
  - Diagram handouts
- 

## **Day 2: Design Principles for Sublimation**

### **Topics Covered:**

- CMYK vs RGB: Understanding color modes for print vs screen
- Vector vs Bitmap:
  - Pros and cons of each in sublimation
  - Scalability and resolution

### **Activities:**

- Side-by-side comparison activity using example images
- Students open and examine CMYK and RGB files in Photoshop
- Class Q&A on how poor file choices can ruin prints

### **Materials:**

- Sample files (RGB/CMYK, Vector/Bitmap)
  - Access to Adobe Illustrator and Photoshop
- 

## **Day 3: Software Skills – Photoshop & Illustrator**

### **Topics Covered:**

- Basic tools and workflows in both programs
- Creating print-ready artwork:
  - Bleeds and safe zones
  - Layers and effects
- Exporting the right file types:
  - PNG, PDF, AI, EPS

## Activities:

- Students practice creating a basic design template
  - Exporting their first sublimation-ready file
  - Mini-challenge: Create a logo or crest for a school club
- 

## Day 4: Marketing & Real-World Applications

### Topics Covered:

- Uses of sublimation in fashion, merchandise, promotional goods
- Targeting niche markets with custom apparel
- Cost analysis and print-on-demand business models

### Activities:

- Group brainstorming: Products that could be sublimated
  - Case study: A small business using sublimation
  - Marketing pitch activity: Students present a product idea using sublimation
- 

## Day 5: Final Project – Graduation Jacket Design

### Project Brief:

Students will design a **custom graduation jacket** using the principles they've learned.

### Requirements:

- Must include at least one image and one vector element
- Proper file setup: CMYK mode, correct resolution (300 DPI), printable dimensions
- Saved in proper format (.AI or .PDF with fonts outlined)

### Deliverables:

- Digital mockup of the jacket
- Explanation of design choices and intended audience
- (Optional: Print one design if equipment is available)

**Assessment Rubric:**

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Work (1)
Correct Use of Software				
Design Creativity				
File Preparedness				
Marketing Insight				
Understanding of Sublimation				

**Materials Provided by State:**

Polyester Fabric  
Garment Templates  
Heat Press  
Printer  
Lesson Plan  
Manufacturing Facility

**Required Resources:**

Adobe Photoshop and Adobe Illustrator  
Computers