TTK UNIT OUTLINE

LESSON 1

Students will be introduced to the project goals and safety expectations. Students will be introduced to the Design Thinking process and will become familiar with the contents of Tinkering Toolkit through a collaborative learning activity

Anchor Artist: Willam Hunter Dammond

LESSON 2

Students will explore cutting techniques and creating interlocking slots with canary cutters, scissors and snips.

Anchor Artist: Romare Bearden

LESSON 3

Students will become familiar with different types of adhesives including tape and glues, and create a new structure from recycled materials.

Anchor Artist: Noah Purifoy

LESSON 4

Students will begin the train car design process with the first two steps of Design Thinking: Empathize & Define. Students will create the Deck, Trucks, and Wheels for their chassis.

Anchor Engineer: Sydney Hamilton

LESSON 5

Using their Problem Statements, students will move on to the Ideate phase of the Design Thinking process. Students will finish our chassis by attaching our wheels to trucks, and finish by attaching completed trucks to deck.

Anchor Engineer: A. Phillip Randolph

LESSON 6

Students will learn attachment techniques including L Brace, Gussets, Flanges, and Sistering.

Anchor Artist: Teddy "Stat" Phillips

LESSON 7

Students will create the interior & exterior of their train cars using attachment techniques from Lesson 6 as well as the Visual Arts Elements of Design.

Anchor Artist: Lonnie Johnson

LESSON 8

Students will connect their individual boxcars into a class train.

Anchor Artist: Andrew Jackson Beard

LESSON 9

Students will reflect and describe their design process with peers to prepare for the final presentation.

Anchor Artist: Jake Montano

LESSON 10

Students will share and demonstrate their learning of the Design Thinking process and Tinkering skills and techniques.

Anchor Artist: Lucy Lippard