3.1 Paper Prototyping

Activities:

Step 1: Brainstorm

Step 2: Paper Prototype

Length:	30 minutes
Overview:	To design for 3D, prototype in 3D using simple materials, emphasizing speed over looks.
Project Outcome:	Students will have a "paper prototype" made from commonly found materials that they can act out what the VR app will do.
Learning Objectives:	The students will be able to: - Use their paper prototype props to describe what the user will do in the VR app, while describing the various interactions taking place.
Prerequisite:	Collect common materials like binder clips, thumbtacks, paper, cardboard, markers, etc.
ISTE Student Standards	4c. Innovative Designer - prototype to iterate from 5c. Computational Thinking - break problems into parts.

Step 1: Brainstorm

The emphasis here is to answer the question, "What training problem are you trying to solve?" and "How does this VR app solve that problem?"

1. In this project, we are making "How to jumpstart your car battery", but if students are making their own app, a good guideline to follow is to only

- **Explain** Another way to think of a VR app to make is to answer, "What do you wish you could learn through physical practice?"

consider trainings that involve simple mechanics such as:

a. Picking up objects
b. Placing objects in specific positions

OTHER NOTES

Step 2: Paper Prototype

Arts and crafts time. Assemble the basic materials that you can act out the scene to others for feedback.

Video https://vimeo.com/349082056

OR

1. Simplify the "training" to a few basic steps, eliminating any unnecessary portions.
    a. Example: if the user must turn a bolt into place, just have them place the bolt instead of actually rotating it. It's the order of the assembly that matters, not the rotating of the bolt.
2. User cardboard, clips, tape, etc to act as props
3. Play out the scene, narrating out loud what the user will need to do with the VR controllers.

- **Explain** Looks don't matter. Emphasis speed and functionality!

An example of a paper prototype for "How to jumpstart your car battery"

End of Lesson

Recap Key concepts:

- The paper prototype serves as a prop to plan and explain to others what the purpose and sequence of the VR app will be.

Key skills:

- Simplifying a process into its most basic elements, eliminating unnecessary steps.

Key terms:

- **Paper Prototype:** A crudely designed prop used to plan a VR app design