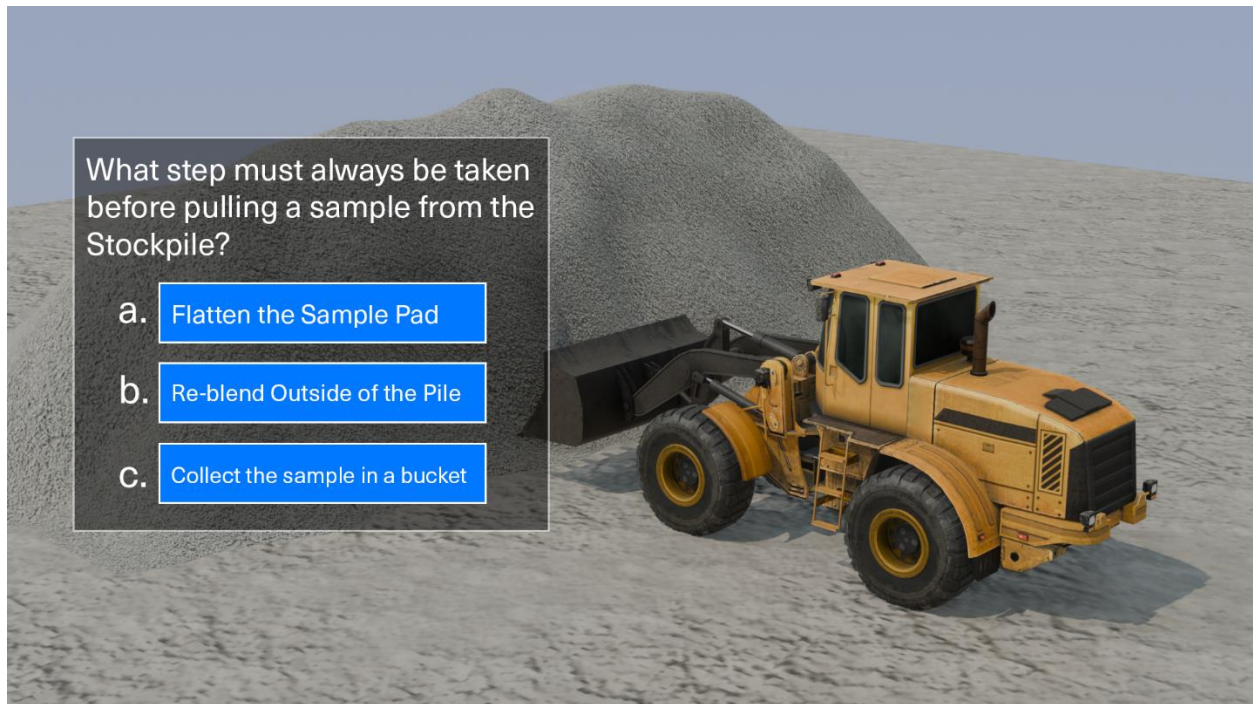D75 Interactivity Storyboard

1. Click "Start" to begin the process of sampling from a stockpile

2. After the user clicks "START" a question appears on screen, which the user must answer correctly to advance to the next step. The correct answer is b.
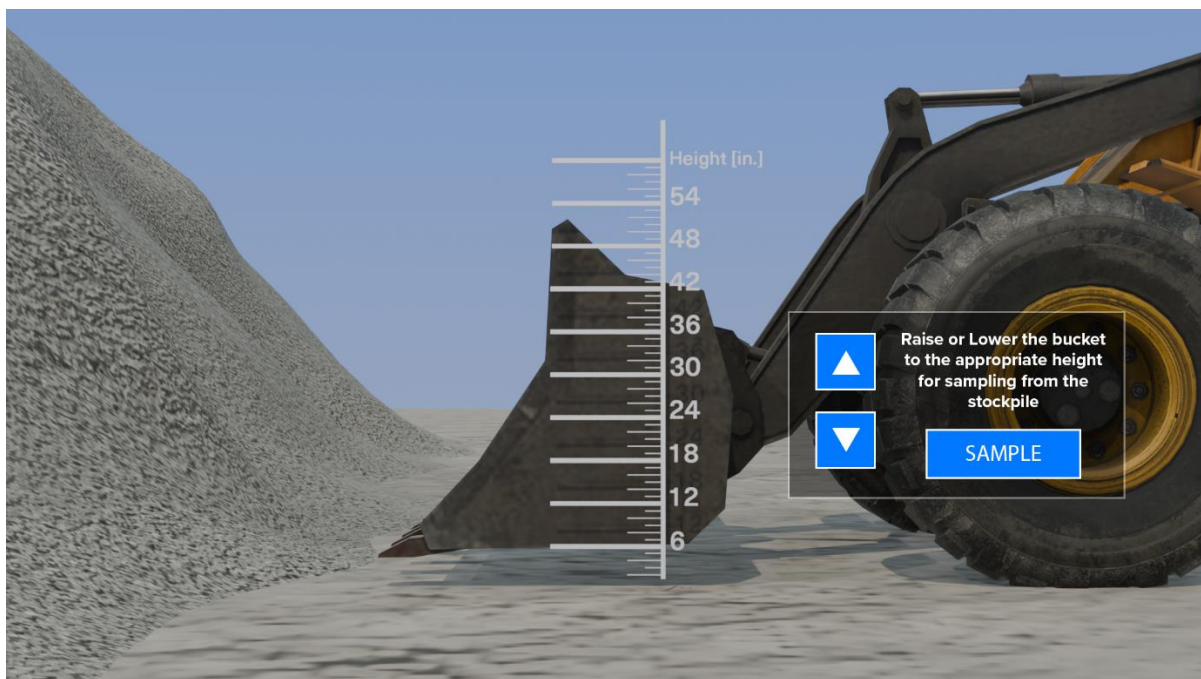
3. Adjust the loader bucket to approximately the appropriate height for sampling from a stockpile

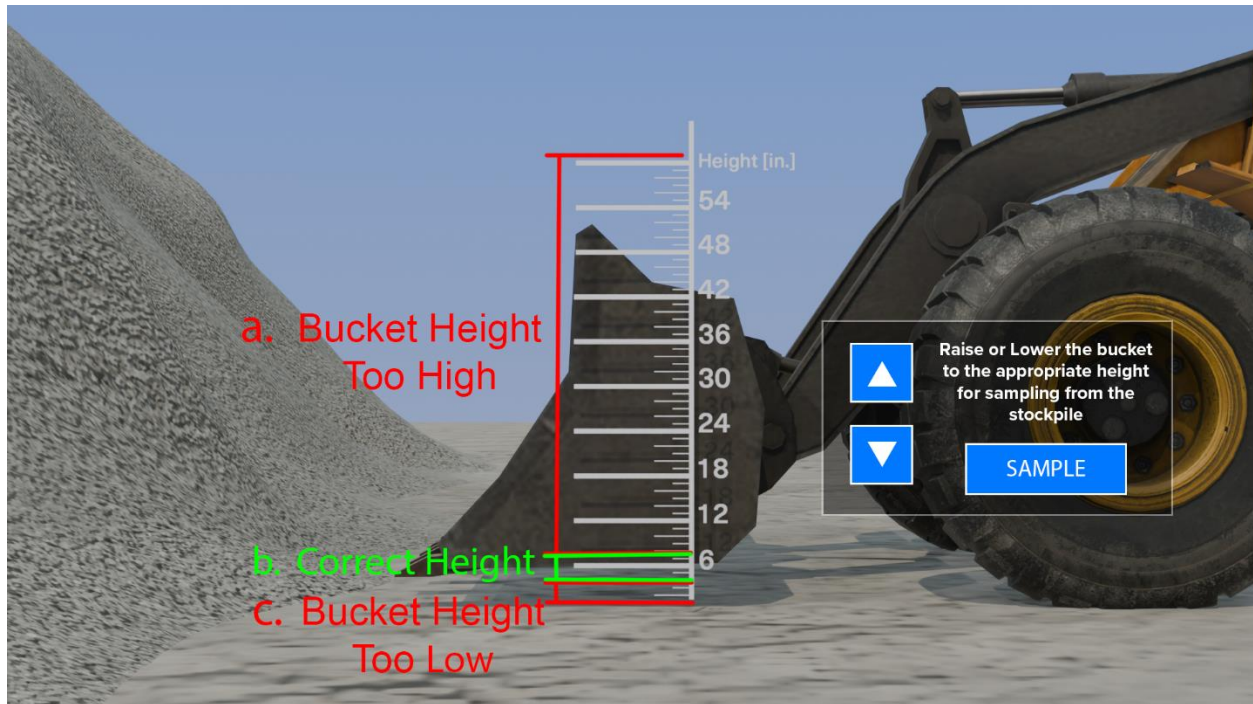For visual reference to Loader Bucket height, sampling from stockpile, and positioning check this video: https://icnk.io/u/Om8FWAQi4QPD/
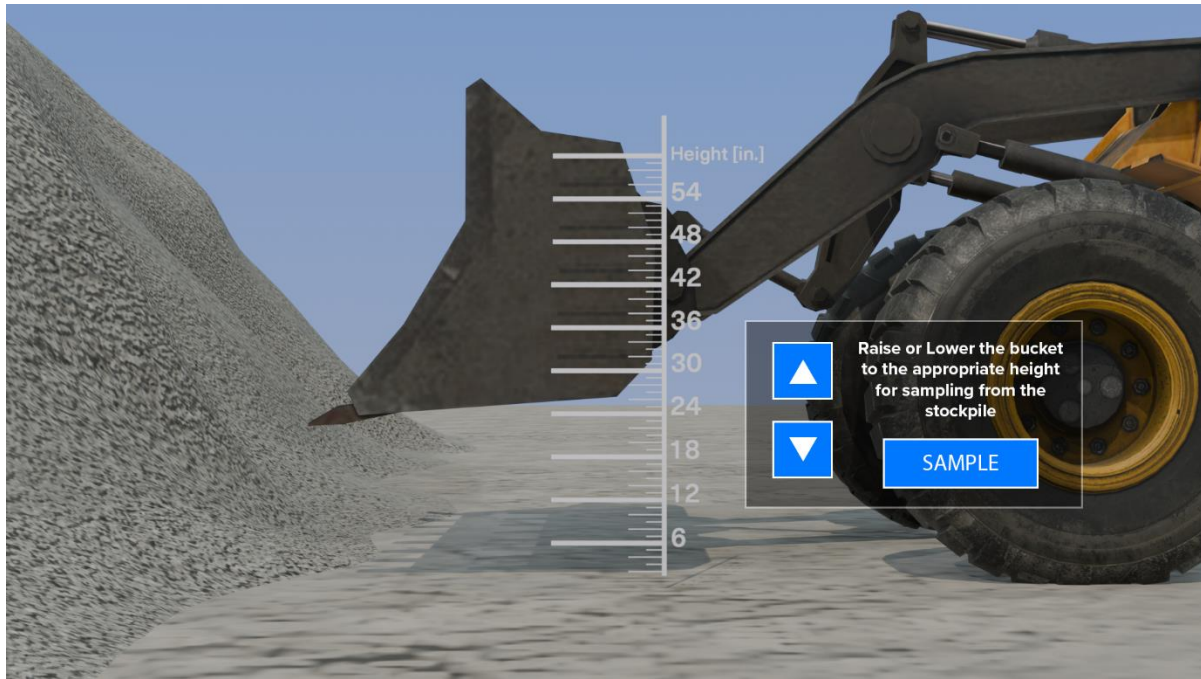
4. When the bucket is at the appropriate height, click the "Sample" button to take a sample from the stockpile.

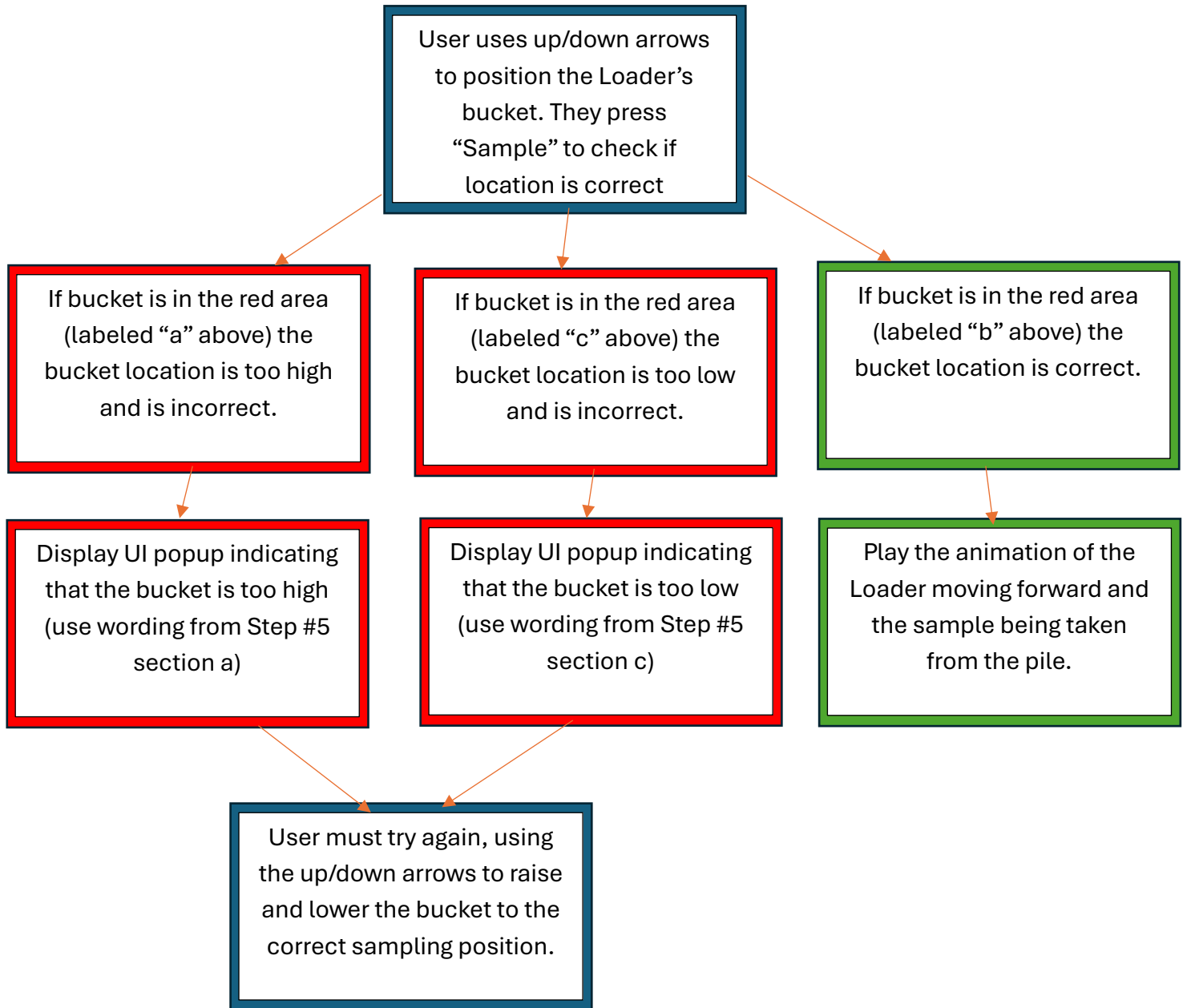5. There should be 3 possible outcomes to clicking the Sample button:

a. If the Sample button is clicked while the Loader Bucket is obviously above 6 inches, a popup should appear stating "The Bucket of the Loader is raised too high above ground level. Try again."

b. If the Sample button is clicked while the Loader Bucket is at 6 inches, the normal animation should play of the Loader moving forward and taking the sample from the pile.

c. If the Sample button is clicked while the Loader Bucket is obviously below 6 inches, we should switch to a new camera angle where we see a new texture on the ground beneath the space where the bucket would have scraped across the ground. This does not need to be animated – instead it can be a camera cut to a view where the Loader has already moved forward and scraped the ground.

When we are in this view, a UI text box should appear that explains: "The Bucket of the Loader was too low, which may result in scraping and the collection of unwanted aggregate from the ground."

There should be a "Try Again" button. Clicking it should return the user to the Bucket Raise/Lower activity.

See Next Page for Flow Chart of Activity:

User uses up/down arrows to position the Loader's bucket. They press "Sample" to check if location is correct

If bucket is in the red area (labeled "a" above) the bucket location is too high and is incorrect.

If bucket is in the red area (labeled "c" above) the bucket location is too low and is incorrect.

If bucket is in the red area (labeled "b" above) the bucket location is correct.

Display UI popup indicating that the bucket is too high (use wording from Step #5 section a)

Display UI popup indicating that the bucket is too low (use wording from Step #5 section c)

Play the animation of the Loader moving forward and the sample being taken from the pile.

User must try again, using the up/down arrows to raise and lower the bucket to the correct sampling position.

6. (If the bucket is at the correct height when the Sample button is clicked, the loader animates and the sample is pulled from the stockpile)

7. (The geometry on the side of the stockpile, where the loader pulled the sample, deforms to show where the sample has been pulled from)

8. (The bucket of the loader is filled with the sample)

9. Click the hot-spot to roll the material from the bucket into a small pile.

10. (Animation of the loader pouring the sample from the bucket into a small pile at the foot of the larger stockpile)


11. Using the arrows, move the Loader forward or backward. The Forward and Backward Arrows should function in a similar way to the Raise and Lower Bucket arrows. The user should be able to hold down the buttons to smoothly move the Loader forward or

backward. There should be a limit of how far the user can move the Loader. See the colored lines in the next step.

Select Flatten Sample Pad when the Loader's front wheel is in the correct position relative to the Sample Pad.

For reference to the flattening of the sample pad, see this video: https://icnk.io/u/Yg_IeakS5rx9/
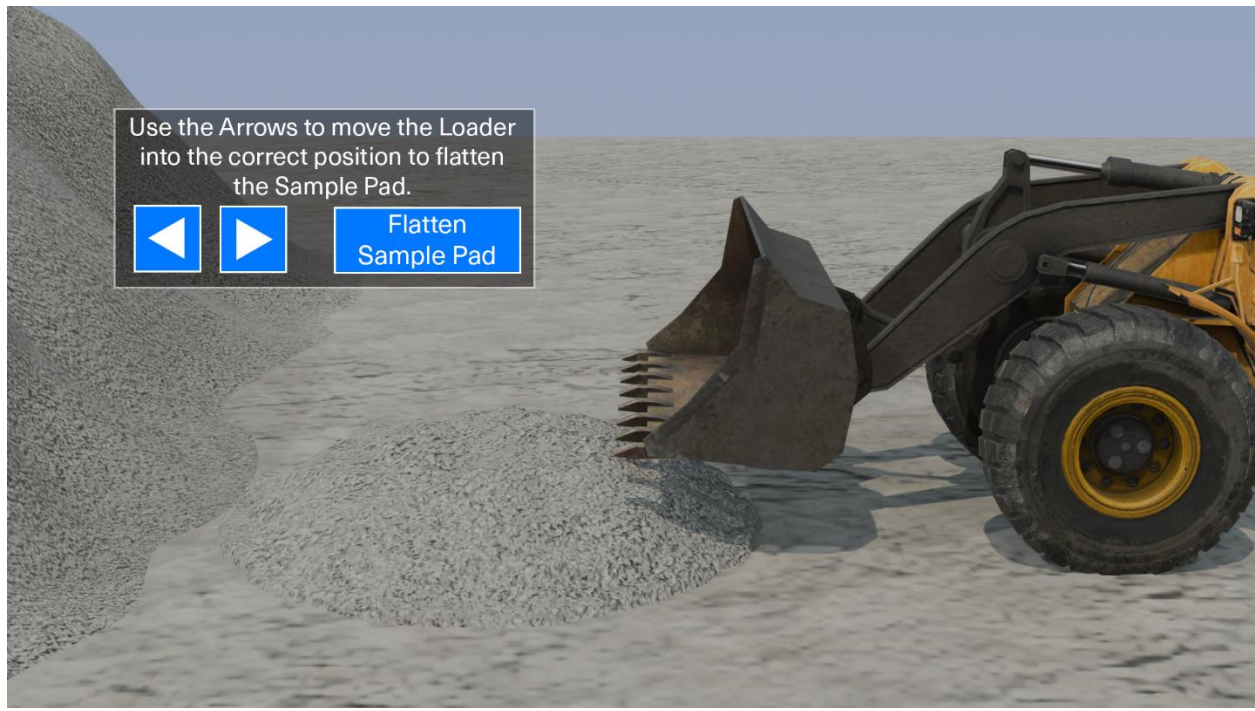
12. There should be 5 main Zones that result in different outcomes when the user clicks Flatten Sample Pad, based on the relative position of the Loader's Front Wheels to the Sample Pad.

    a. Too Far Away/Too Far Onto the Sample Pad. Any position in either of these ranges is incorrect.
- Clicking the "Flatten Sample Pad" button while within these ranges should result in an "Incorrect" UI popup.

    b. Within Tolerance. This is technically acceptable.
- Clicking this should trigger the animation of flattening the sample pad.

- Additionally, a UI popup should appear saying "This is an acceptable position, however always ensure the Loader's front wheels are not too far on top of or away from the pile."

c. Most Accurate. This is the most accurate position of the Loader's Front Wheels.
- This should also trigger the animation of the sample pad being flattened.
- Additionally, a UI popup should appear saying "Perfect! The front wheels of the Loader are in the correct location."
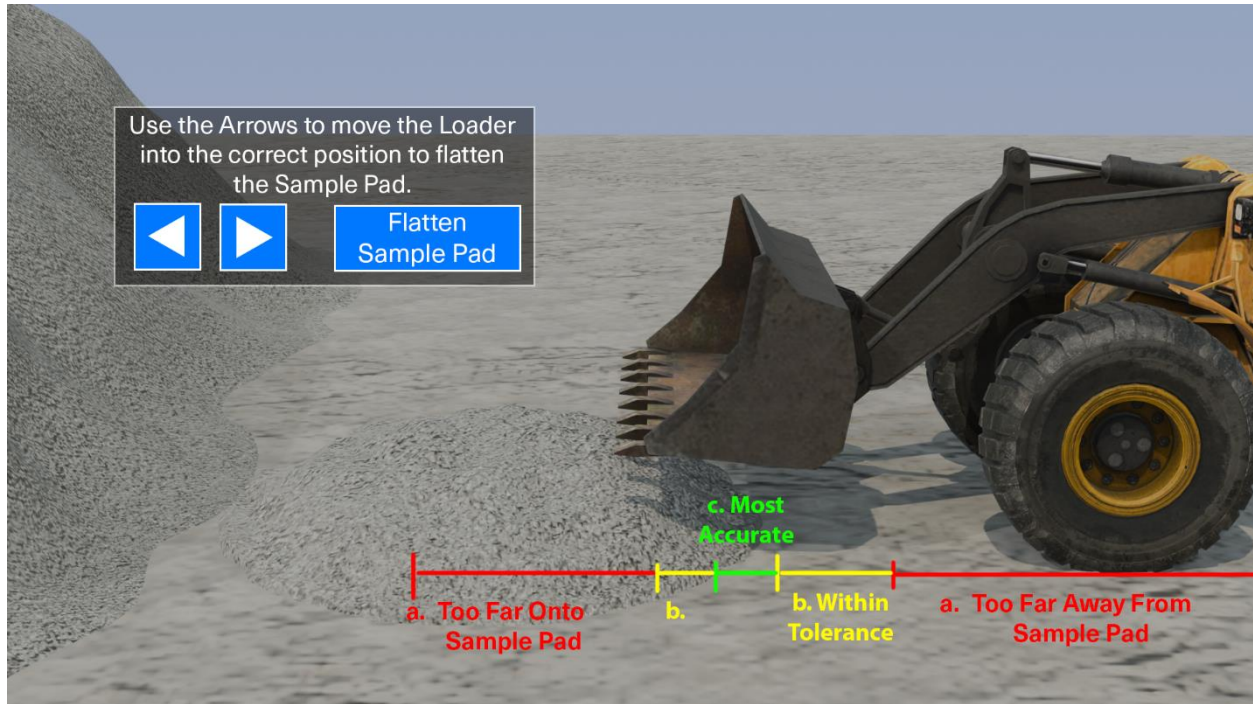
See chart on following page for details of how this activity should flow:

Step 12 Diagram of Activity Flow:
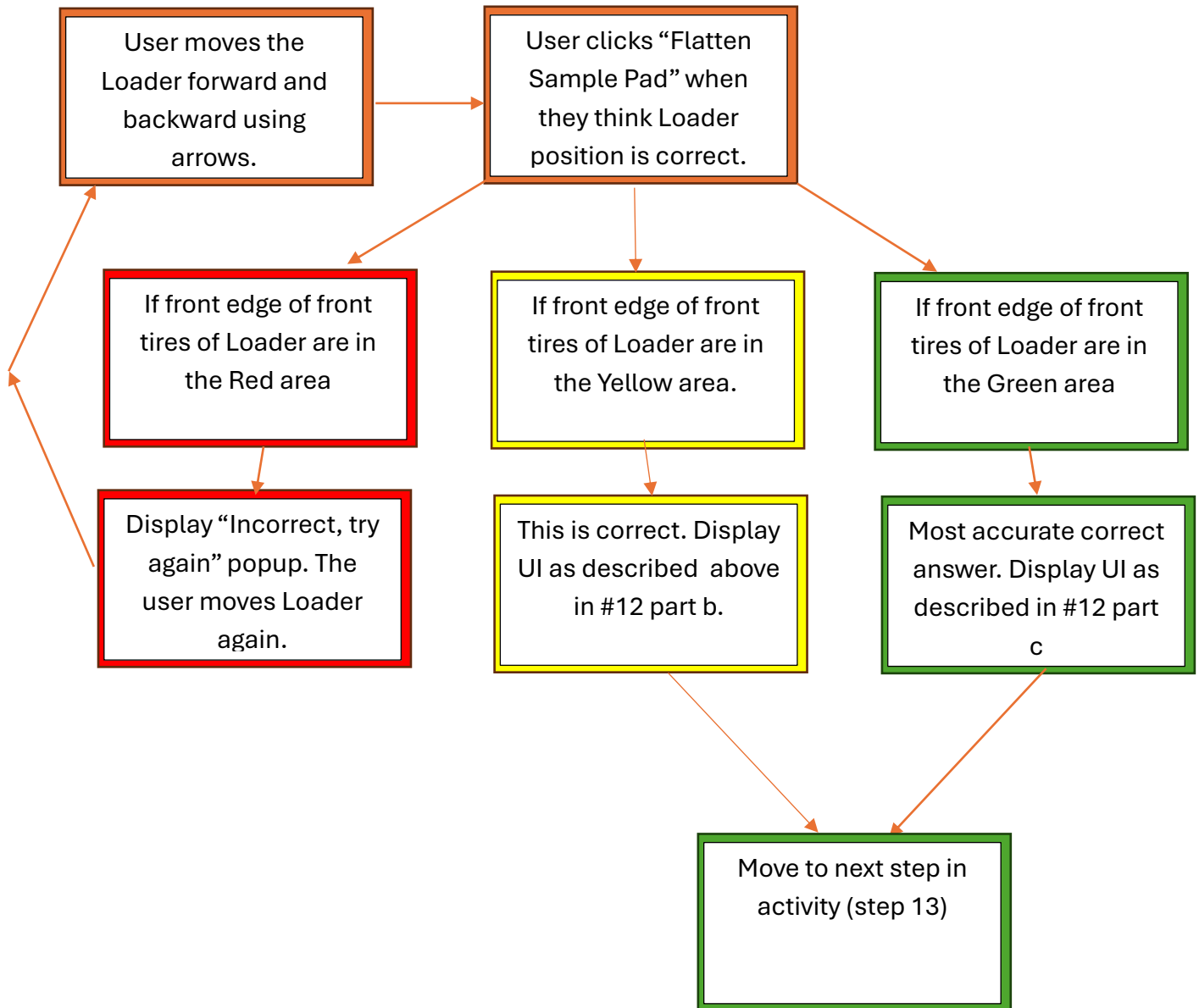
13. (Animation of the loader moving forward, using the bucket to flatten the top of the sampling pad)

14. (A bucket and shovel appear on top of the Sample Pad)

15. Select each quadrant to pull a sample from the Sample Pad and deposit each sample into the bucket.

- The circular indicator should follow the mouse cursor position while hovering over the Sample Pad. Clicking too far toward the edge of the Sample Pad should result in a UI Popup stating "Sampling must not occur within 1 foot of the Sample Pad edge"

16. The Green area on the Sample Pad below is the correct region to sample from (this is purely for example, do not include green and red overlay in the activity). Red is too close to the Sample Pad edge.

17. (When the user selects each of the four quadrants, the shovel animates, pulling a bit of sample from the sampling pad, and pours it into the bucket)

For references to shoveling the sample into the bucket, check this video:
https://icnk.io/u/6_GxCrtFalAe/

Video References:

- Loader positioning, pulling sample from larger pile, pouring sample into sample pad (steps 1 – 10): https://icnk.io/u/Om8FWAQi4QPD/
- Flattening Sample Pad (steps 11 – 13): https://icnk.io/u/Yg_IeakS5rx9/
- Sampling from the Sample Pad (steps 14 – 17): https://icnk.io/u/6_GxCrtFalAe/