

## Lesson Plan 1 Outline

### Objectives:

- Students become acquainted with the Alice IDE.
- Students add objects to a scene, he/she builder and trees.
- Students call built-in methods, some with parameters, to animate Story 1.
- Students are introduced to the *ego-centric* nature of *Alice* objects.
- Students will learn to use the *doTogether* construct.
- Students use a world function to get input from the user and Boolean variables to hold the answer.
- Students will learn how to search the galleries.
- Students will use the *quad view* capability.
- Students will learn about object *properties*, specifically the *vehicle* property.
- Students use a marker (dummy) to mark the initial camera position.
- Students will use the *opacity* property to make an object invisible and then appear.
- Students will add a built-in sound to their animation.
- Students explore the Gallery.
- Students are exposed to (object-oriented) programming terms e.g. object, method, parameter, if/else.

### Talking points:

1. Hand out thumb drives and have them put their names on them.
2. Students team up in groups of 2 or 3, or they may work alone.
3. Show students how to log into the system and bring up Alice.
4. Begin by dropping a dummy at the camera. (Note that the usefulness of doing this will become apparent later.)
5. Add our main character using he-builder or she-builder. (Limit student time to 10 minutes)
6. Save the file, giving it a good name.
7. Add trees to the scene.
8. Talk about built-in methods (for all objects and then for our particular character) and demonstrate a few.
9. Follow the storyline in Story 1.
  - a. Demonstrate idle – to get our character’s arms down.
  - b. Demonstrate stand and turn to face.
  - c. Demonstrate *do together* with hello and say, and then walk and move.
  - d. Demonstrate asking the user a yes/no question.
    - i. Discuss variables and use a Boolean variable to hold the answer
  - e. Demonstrate the if/else
    - i. If the user said no, then the character gets angry, thinks that we are “no fun,” turns, and with another *do together* of walk and move, walks away.

## Lesson Plan 1 Outline

- ii. If yes, ...
- 10. Add the magic wand (search the libraries for it) and position it in the character's hand (introduce quad view – this will be rather difficult – talk about the Undo option).
- 11. What happens when we play the animation? [The magic wand doesn't move. Introduce the *vehicle* property.]
- 12. Make the wand invisible [Talk about properties. Set *opacity* initially to 0]. Then, if the user responds with yes, make the wand appear [by setting the *opacity* to 100%].
- 13. Use the character's *hello* method for "waving the wand."
- 14. Have the character wave the wand, after which ...
  - a. The students decide what they want the tree to do. Brainstorm ideas ... spin around, disappear, change color, ....
- 15. Add a sound to go along with the magic.
- 16. If time remains, student s can add scenery and/or add more to the storyline.