<table>
<thead>
<tr>
<th>Date</th>
<th>Subject/Period</th>
<th>Essential Question (?)</th>
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</thead>
<tbody>
<tr>
<td>1 class period of 45 minutes</td>
<td>8th grade Computer (2nd or 3rd class)</td>
<td>How can I move an object to a place I want in the world? How can I program an object to do 2 things at the same time and move?</td>
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<tr>
<th>Teacher C. Stortz</th>
<th>Goal/ Essential Standard (Nebraska uses ISTE standards for state Standards)</th>
<th>Objective: Students will program a dragon to fly and move at the same time.</th>
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**Starter**
Describe how we move in real life? What does the movement look like? Students will verbally and physically demonstrate.

Students will open the grass world emailed to them. Directions for creating the world will be written on the board. Projector will be on to show windows while verbal directions are given to explain how to make the dragon fly. Directions for duration and style will be added at appropriate times.

**Exit Slip**
Students will have a flying dragon with extra objects added into the world for effects using prior knowledge.

**Homework**
none

(Extra days can be added based on where students are in the lesson)

**Learning Target:** “I Can”
- Students will resize and position objects.
- Students will use do together programming in Alice to loop objects and move them in a close approximation of natural appearing movement.

**Instructional Strategies (Nebraska uses ISTE standards for state Standards)**
1. Students demonstrate creative thinking, construct knowledge and develop innovative products and processes using technology. (1- a, c)
2. Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. (4- b, c, d)
3. Students demonstrate a sound understanding of technology concepts, systems and operations. (6-a, b,c, d)

**Procedure:**
1. Discuss how things look when they move.
2. Open email and drag the Alice world emailed to them onto desktop.
3. Open Alice then find the world on the desktop to open. (Students have been saving things to desktop for 3 years.
4. Read directions on the white sign and follow green directions.
5. Click done and choose dragon from the object tree.
6. Make sure methods tab is open at the bottom.
7. Click create new method and call it hover. Drag a Do together box up from bottom.
8. Place a do in order box inside the dotogether
9. Click on the plus sign by the dragon. Click on the right wing and look at the methods.
10. Drag a right wing roll and choose right ¼ revolution into the do in order box.
11. Drag another rightwing roll into the do in order box, but this time choose left ¼ revolution.
12. Place another do in order box under the first and repeat for the left wing, choosing roll left first then roll right.
13. Drag one final do in order box into the hover method. This time we are...
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| going to have the dragon move up and down by .5 meters | 14. Click on Create a new method again and call this one fly.  
15. Drag a loop into the box and choose infinity.  
16. Drag a do together box into the loop. Click and drag the hover method into the do togetherbox  
17. Drag a move forward 5 meters underneath the hover method.  
18. Under the move forward, drag a turn left $\frac{1}{2}$ revolution.  
19. Click back on the world my first method tab. Drag the dragon fly method into it. Hit Play. Does it look right? How can it be changed to look right?  
20. Add appropriate objects to complete the picture. |