Topic Description

After a quick review of the When...Do... programming construct of Kodu, students begin a four-lesson collaborative project to revise one of the Kodu games they have worked with during the past three lessons. The project is designed as a process of collaborative brainstorming and planning, gathering peer feedback, redesigning, developing, testing, and iterating through the steps again to final production of their game. The project concludes with a Gallery Walk exhibit.

Objectives

Students will be able to:
- Collaborate to create a game design
- Communicate ideas to peers
- Consider and incorporate feedback

Materials and Preparation Required

- Access to the Internet and Kodu Game Lab: http://www.kodugamelab.com
- Computing device with screen display for teacher
- Computing devices with keyboards for students
- Flashy Fishbots (completed working game): http://aka.ms/flashyfishbots
- Boku's Amazing Race: http://aka.ms/amazingrace
- Air Delivery Tutorial: http://aka.ms/airdelivery
- Air Delivery Complete: http://aka.ms/airdeliverycomplete
- Student Guide: Student_Guide_Kodu_Makerspace.docx
- PowerPoint Presentation to deliver the lesson: 4_Slides_Kodu_Makerspace.pptx
- Dry run the PowerPoint Presentation in Slide Show mode to enable animations and be familiar with any on-click animations
- Headphones for students (recommended)

Outline of the Lesson

- Getting Started: Review Air Delivery
- Collaborative Game Design
- Gather Feedback
- Plan Revisions
- Wrap up
Student Activities

- Review the When...Do... programming construct
- Collaboratively design a game
- Present ideas to their peers
- Revise plans based upon peer feedback

Teaching/Learning Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>PPT Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Getting Started: Review Air Delivery</strong> (5 min)</td>
<td>Slide 1</td>
</tr>
</tbody>
</table>

Introduce the fourth lesson *Exploring Developer Experience, part 2* by sharing the Big Questions. Display slide 2 for questions.

- What ideas do we have for redesigning one of the games we’ve played?
- What cool ideas will others have for our game’s plans?

Direct students to open Air Delivery complete and play for two minutes.

Review the When...Do... programming constructs in Air Delivery:

- Ask students to summarize the action they witnessed in Air Delivery
- Display slide 3
- Ask students what this segment of code does.
- Display Slide 4

Think-Pair-Share:

- If you could change anything about the appearance of the objects or characters, what would it be?
- If you could change anything about the actions, what would it be?

| Collaborative Game Design (15 min) | Slide 5 |

Display Slide 5. The activities in the remaining five lessons guide students to revise one of the completed, working games they have already worked with (Flashy Fishbots, Boku’s Amazing Race, Air Delivery).
Strategy

The activities will guide students through an iterative process of designing, testing and gathering feedback, redesigning, and finally sharing the final product.

Form teams of two to work together for the next five lessons.

Think-Pair-Share

- Display slide 6.
- Refer to Student Guide pages 13-15. Each page shows the background of one of the three games students have explored in previous lessons.
- Preview the project by telling the students: “Now is your chance to be creative and revise one of the games to include your ideas for characters and action.”

Display slides 7 – 9. Tell the students the steps:

- With your partner, select one of the games to revise
- Sketch your first ideas in your Student Guide
- Share your ideas with the rest of the class
- Gather ideas from your classmates
- Revise your plans
- In the next class, you will begin to put your plans into action

Reassure students that plans they make today will not to be the final plans. They will have more opportunities to refine their ideas for the games as they work through the next several lessons. We call this an “iterative process”. This means that they will be designing, testing, getting feedback, and redefining their games several times before they have final versions. This is how game designers work in the real world of game design.

Share the list of possible revisions for the game shown in the appendix of the Student Guide. These will provide some structure for the student’s work and ensure that students can be successful. Read through the list. Tell students that
<table>
<thead>
<tr>
<th>Strategy</th>
<th>PPT Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>because they have a limited time to work on the games in class that they should select ideas from the list to elaborate upon.</td>
<td></td>
</tr>
<tr>
<td>Remind them that they can download Kodu on their personal computing devices and create other games outside of class. Refer students to Appendix C in Student Guide.</td>
<td></td>
</tr>
<tr>
<td>Refer to Student Guide pages 13-17. These are elements that teammates should talk about.</td>
<td></td>
</tr>
<tr>
<td>- What is the goal of your game?</td>
<td></td>
</tr>
<tr>
<td>- Add characters you want to use.</td>
<td></td>
</tr>
<tr>
<td>- Describe the When... Do... you want to include.</td>
<td></td>
</tr>
<tr>
<td>Students may need to look at the various menus in Kodu to make their plans.</td>
<td></td>
</tr>
<tr>
<td>Provide about 10 minutes for teams to select a game to revise and to sketch initial ideas on the images in the Student Guide.</td>
<td></td>
</tr>
<tr>
<td><strong>Gather Feedback (15 min)</strong></td>
<td></td>
</tr>
<tr>
<td>The purpose of this activity is for teams to share their ideas and gather ideas from other classmates.</td>
<td></td>
</tr>
<tr>
<td>- Teams take turns telling the class their ideas for their revised game. Display each game background (toggle among slides 7-9 to display the chosen slide in the presentation for them to refer to as they describe their ideas.</td>
<td></td>
</tr>
<tr>
<td>- Ask the other students to provide ideas to the presenting team. Keep the ideas within bounds for the time they will have to work.</td>
<td></td>
</tr>
</tbody>
</table>
### Strategy

<table>
<thead>
<tr>
<th>Strategy</th>
<th>PPT Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan Revisions</strong> (10 min)</td>
<td>Slide 9&lt;br&gt;View Delivery</td>
</tr>
<tr>
<td>After teams have presented, give them 10 minutes to revise/complete their planning sketch. Display slide 10. &lt;br&gt;Remind them of their primary planning tasks:  &lt;br&gt;• What is the goal of your game?&lt;br&gt;• Add characters you want to use.&lt;br&gt;• Describe the When... Do... you want to include.</td>
<td>Slide 10&lt;br&gt;Plan Revisions&lt;br&gt;• What is the goal of your game?&lt;br&gt;• Add characters you want to use.&lt;br&gt;• Describe the When... Do... you want to include.</td>
</tr>
<tr>
<td>Students may need to look at the various menus in Kodu to make their plans.</td>
<td>Slide 11&lt;br&gt;<strong>Thank you!</strong>&lt;br&gt;See you next time!</td>
</tr>
<tr>
<td><strong>Wrap up</strong> (5 min)</td>
<td></td>
</tr>
<tr>
<td>Ask students to think of a name for their game. They should write it on their planning design.</td>
<td></td>
</tr>
<tr>
<td>Ask students to share some of the best ideas they got from their peers for changing their games.</td>
<td></td>
</tr>
<tr>
<td>Ask students for answers to the Big Questions.</td>
<td></td>
</tr>
</tbody>
</table>

### Extensions

Students can research game designer careers and report their findings on a poster or presentation.
Tips

The three choices for the collaborative project range from easy (Flashy Fishbots) to a bit more challenging (Boku’s Amazing Race) to the most difficult (Air Delivery). Help students select the starting project to fit their needs. Keeping students’ plans reasonable for the classroom time restraints may be a challenge. They will be tempted to totally redesign the games. Your task is to keep their ambitions aligned to their skills and knowledge of Kodu and the time available for this project.