Artist: Debugging

Lesson time: 30 Minutes

LESSON OVERVIEW

In this stage, students will continue practicing their debugging skills by helping the Artist to fix pictures that aren't coming out quite right.

TEACHING SUMMARY

Getting Started

Introduction

Activity: Artist: Debugging

Artist: Debugging

Extended Learning

Extension Activities

LESSON OBJECTIVES

Students will:

- Predict where a program will fail
- Modify an existing program to solve errors
- Identify an algorithm that is unsuccessful when the steps are out of order
- Reflect on the debugging process in an age-appropriate way

GETTING STARTED

Introduction

By now students should be pretty comfortable digging in and finding bugs. This is a great time to bring the class together to share debugging tactics and difficulties.

- What kinds of bugs are easiest for you to see? Why?
- Which bugs were the hardest to find? How did you eventually fix them?
- What's the first thing you look for in a buggy program?

ACTIVITY

Artist: Debugging

Some students are averse to running a program until they've fixed it. Sometimes the easiest way to figure out what's wrong with a program is to watch it fail, so there's nothing wrong with running a program before we've finished fixing it. The only time we care if they got it right the first time is on the assessment levels.

EXTENDED LEARNING

Use these activities to enhance student learning. They can be used as outside of class activities or other enrichment.

Planting bugs

Have students go back through previous levels, purposefully adding bugs to their solutions. They can then ask other students to debug their work. This can also be done with paper puzzles.