Exploring Computer Science

variables, loops, random

Why are we doing this?

- Learn to decompose problems into steps
- Learn basic constructs of programming
- Better understand how computers work
- Spatial reasoning skills are critical
- Be creative

Grading

- 35% projects
- 30% exercises, worksheets, participation
- 35% tests and quizzes

In-class work, projects

- Primarily looking for effort
- Try hard, have a good attitude
- Push yourself beyond the bare minimum

Tests/quizzes

- Short unit quizzes
- Comprehensive final exam
- Open notes
- Question example:
 - What differences are there between instructions given to people and computers?
 - What does the following Scratch code do:

Recap from last time

- What have we learned so far?
- How did you guys approach the square?
- Let's do a triangle together

Loops

- Repeat tasks multiple times
- Reduce redundancy
- Core idea that makes computers good at tedious tasks
- Could we use a loop for the square or triangle?

Variables

- Information a program can use and modify
- Variables have names
- In Scratch, variables always hold numbers
- In Scratch, the user can set them
 - Double click the variable to get a slider



