+++ TEACHING GUIDE +++
MODULE 1: INTRODUCTION

Agenda:

1. Icebreakers (10-15 mins)
2. Instructor introduction and examples (5 mins)
3. Discussion: technology in our world (15 mins)
4. What we will learn in this course (5-10 mins)
5. More examples, live coding example, questions (20 mins)

[*For this first session, it isn't necessary to provide print-outs of the agenda for the day because it will mostly be discussion and looking at examples. However you will want to print future modules so learners can follow the instructions. For this session, learners will need pencil and paper for a brief writing exercise.*]

Icebreakers

[*Below are three ideas for icebreakers. Choose the two you think are best for the group, or feel free to use others depending on group size and familiarity between course participants.*]

Interview Game:
Partner the students up in teams of two and allow each student to interview his teammate for two minutes to learn as much information as possible. Once the interviews are complete, go around the room and have the students take turns introducing their teammates to the rest of the group. This activity can alleviate the awkwardness that a student may feel about talking about herself in front of a group.
You can give students a list of questions to facilitate the interview. Examples: Where are you from? What is your favorite color? How many brothers and sisters do you have? What is your favorite subject at school? What is your favorite food?

Guess the celebrity:
This one isn't about learning names, but is a fun game to get students comfortable chatting with one another.
Have each student write down the name of a famous person like a celebrity or athlete on a piece of paper. Have each student tape the piece of paper on another student's back. Tell students to go around the room and ask others *yes or no questions* about the person on their back. For example, "Is she a singer?" is a valid question, but "What does she do?" is not valid.

Students should only be able to ask one question to each student. Depending on group size and time, continue the game until more than half of the students have guessed the person written on their back.

Name Chain:
Have the learners form a circle. Use a ball or other small object that learners can pass among themselves. The person with the ball has to use a positive/fun adjective starting with the first letter of their first name (e.g. Marvelous Michelle, Smart Sam). The next person has to repeat the previous names and descriptions, then create one for themselves. The learner then passes the ball to the next person.
If the group is very large, just have them repeat the previous two students' descriptions & names. If the group is small enough, challenge the learners to remember all the adjective-name pairs of the group.

Instructor intro and code art examples

[*Introduce yourself to the group and speak about the types of work you do with computers and coding. Share a quick example of your creative coding work and/or share 1-2 works by other code artists. Pick some of your favorites with the goal of grabbing the learners' attention and making them excited about the possibilities of learning to code. Share more examples at the end as time allows.*]

Discussion: technology in our world

[*You've just introduced yourself and shared your relationship to computers and coding. Use the discussion to introduce the many other uses of computers/coding/etc. The goal of the discussion is to get the learners to first think very broadly about technology and all of its uses in the world generally, and their lives specifically. You can define technology as broadly as electricity, automobiles, etc., but ideally you want to focus on information technology (computers, phones, the Internet, etc.)*

For high-school-aged learners, you want to get them thinking about what technology they use already and what sorts of professions regularly use technology and computers. Most of the conversation will likely be about more technical uses and professions. Toward the end of the discussion, direct the conversation to the idea of using this same technology for self-expression and art.]

Popcorn (free association)

[*On the whiteboard (or in a text editor if you have a projector), write out the first prompt and have learners shout out words they associate with the prompt word. Collect a few responses for*

each prompt and try to have everyone contribute a word or phrase. This exercise helps get students comfortable sharing their ideas and interacting with you.]

Prompts for free association:

Technology, computers, artist

Free writing

[G*ive the learners 3 minutes to write a response to the question below. Then ask learners to share some of the things they've written down with the group. This exercise allows more introverted students time to reflect and hopefully feel more comfortable sharing their ideas with the group.*]

Prompt for free writing:

Write down as many professions/jobs you can think of that use computers or coding.

Other possible discussion questions to guide the conversation:

- What are examples of technology?
- What kinds of technology do you use every day?
- What can you use a computer for?
- Who uses computers? What kind of work do they do?
- Can computers be used to make art? Can you think of any examples?

What we will learn in this course

[*Provide a brief outline of the course, using a whiteboard or projector, if available, to write out the different topics and modules. While the course will teach the learners new skills with computers and programming, emphasize that the focus for each session will be on using these new skills in creative ways, to make something fun and unique. During each module, the learners will be expected to complete a short exercise and submit it before the next session.*]

The next three modules, will be about exploring the computer and becoming more comfortable with how to use it.

Starting with Module 5, we'll begin to use computer programming to make drawings. We'll start with simple shapes and colors, then move on to creating drawings that we can interact with and change in real time. By the end, we'll be prepared to find new resources to learn even more about using computer programming to make art. Hopefully, we'll discover that the type of art we can make on a computer is only limited to our imagination.

More code art examples, live coding, and questions

[*The goal of sharing examples is to provide inspiration and motivation for the learners. Although most examples of code art are still images and GIFs/animations, try to share a wide variety of examples, from videos and music visualization, to fashion and simple games. Hopefully, at least one example will strike a chord with a learner and get them excited about the possibilities of learning more about creative coding.*

After you show some examples, give a live coding demonstration. Present something very simple that they will be able to learn in the course (like using the mouse to paint with ellipses with no background redrawing) and show that will 1-2 small changes to code you can draw with different shapes, different colors, etc. This gives them a small look behind the scenes, and introduce them to the power they will have to make things look however they want.

Leave a few minutes for questions. *The learners will likely have questions about coding, JavaScript, and the kinds of things they will learn in the course.*]

The following are just a few examples of the types of art you can make with creative coding:

GIFs:
http://bit.ly/2kOUPTG
http://bit.ly/2kagKYp
http://bit.ly/2ktt1TE
By Dave Wythe

http://bit.ly/2lqJGvA
Yung Jake by Phillip Stearns

http://bit.ly/2ktj6xH
By Saskia Freeke

http://bit.ly/2eHjLxh
By Frédéric Vayssouze-Faure

Images:
http://bit.ly/2lvfJX4
http://bit.ly/2kP2vVY
http://bit.ly/2lva4jA
By Adam Ferriss

http://bit.ly/2kaZBsH

By Saskia Freeke

http://bit.ly/2lqREot
http://bit.ly/2lvbpXF
By Fotograffika

Fashion:
https://www.youtube.com/watch?v=owHEaz9s7E8
http://www.continuumfashion.com/Ddress/ (interactive dress maker)

Videos:
https://vimeo.com/11777813
https://vimeo.com/23281150 -music visualization
By Quayola

http://bit.ly/2uPvdxv -music visualization by radarboy3000

Games:
http://flappybird.io/
http://patorjk.com/games/snake/

For more - Dan Shiffman's talk at Codeland:
https://www.youtube.com/watch?v=68JUaszsvmU