# Useful Coding Resources

#### Learning Processing

- Tutorials at Processing.org <a href="http://processing.org/tutorials">http://processing.org/tutorials</a>
  - o These are word-heavy tutorials that explain a lot of basic and useful functions
- Creative Programming tutorials <a href="http://funprogramming.org">http://funprogramming.org</a>
  - These excellent videos (of which there are more than 100) range from introductions for the novice to demonstrations of weird and interesting things
- Nature of Code: <a href="http://natureofcode.com/book">http://natureofcode.com/book</a>
  - Assumes little familiarity and has very tutorials on a range of topics suitable for physics and other natural simulations
- CodedSteele tutorials: <a href="http://www.youtube.com/user/hannemanni">http://www.youtube.com/user/hannemanni</a>
  - A series of video tutorials covering a few useful techniques
- Processing reference: <a href="http://processing.org/reference">http://processing.org/reference</a>
  - o You will find yourself here every time you forget how to use a particular function!
- Examples within the Processing Development Environment itself

## Other code-learning

- Hour of Code: <a href="http://code.org/learn">http://code.org/learn</a>
  - o Many different introductory activities and pathways into coding
- Scratch: <a href="http://scratch.mit.edu/">http://scratch.mit.edu/</a>
  - A visual programming language where programs are constructed by dragging blocks and puzzle pieces into place.
- App Inventor: <a href="http://appinventor.mit.edu/explore/">http://appinventor.mit.edu/explore/</a>
  - o A similar style to Scratch, aimed at making apps for Android devices
- Codecademy: <a href="http://codecademy.org">http://codecademy.org</a>
  - o online, interactive tutorials for a variety of languages.

### Sources of inspiration

- Bees and Bombs: http://beesandbombs.tumblr.com
  - o GIF animations created by a physicist using Processing
- Project Euler: <a href="http://projecteuler.net">http://projecteuler.net</a>
  - o A series of computational mathematics challenges

## Processing tips

- Don't forget that you can resize the window!
- Colour picker (Tools -> Color Selector): gives you RGB and hex codes for colours
- Autoformat (Ctrl-T or Cmd-T): does a pretty good job of neatening up your code for easier reading
- Tweak mode (mode menu -> Add Mode): allows adjustment of coded values while program is running
- Processing's social media:
  - o Twitter (<a href="https://twitter.com/processingOrg">https://twitter.com/processingOrg</a>) and
  - Facebook (<u>https://www.facebook.com/page.processing</u>)

#### Github

Github is supremely useful for sharing code, collaborating and version control.

- Github itself: <a href="http://github.com">http://github.com</a>
- Tristan's repository: <a href="http://github.com/tristanmiller">http://github.com/tristanmiller</a>