Tips and Activities that Can Help You Be Successful!

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First Week Activities

High Interest
Candy Sort

1. Divide students into groups
2. Give each group a bag of assorted candy
3. Tell the groups to select an attribute and sort the candy
4. Have the groups share their attribute
5. Repeat

I refer to this activity throughout the year

Courtesy of Dean Johnson, Ft Atkinson, WI
Definition of Computer Science
WebQuest

Two Google Surveys
First Survey

- Students’ name
- The student’s definition of computer science
Second Survey

- Students’ name
- Wikipedia definition of computer science
- Describe how your definition is similar
- Describe how your definition is different
- Why should girls be involved in cs?
- Why should everyone learn to code?
Stanford Digital Editing

• Wonderful set of exercises for the first week of school or later
• Based on Nick Parlante's Stanford CS101 course
• http://introcomputing.org/
Activities That Retain Students
Programming with Turtles

- Students write pseudocode first
- Students role play their code
- Write code to draw geometric shapes
- Write code to draw initials
Recursion Labs

• Set of recursion examples
• Take students step-by-step through the recursion process
• Students use colored pencils to draw lines to each recursive call
String Labs

- Make sure students understand the String methods in the APCS Java subset
- Provide a worksheet
- Provide working examples
Scaffolding Activities
Vocabulary Development

- Determine Tier 2 and Tier 3 Words
- Google Survey
- Define on Frayer Table
- Students complete Frayer Table
- Games for practice
Unit Reflection

Students discuss

- What was learned in the unit
- Select a program to demonstrate learning
  - Why was this program chosen
  - What did you learn
- Issues encountered
  - How were they resolved
AP Review
## Number System Count Down

<table>
<thead>
<tr>
<th>Person</th>
<th>Date</th>
<th>Day</th>
<th>Dec</th>
<th>Binary</th>
<th>Base 4</th>
<th>Octal</th>
<th>Hex</th>
<th>Name</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Feb 20</td>
<td>Thurs</td>
<td>75</td>
<td>1001011</td>
<td>1023</td>
<td>113</td>
<td>4B</td>
<td>Ms. TR</td>
<td>0</td>
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<tr>
<td>1</td>
<td>Feb 19</td>
<td>Wed</td>
<td>74</td>
<td></td>
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<tr>
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<td>Feb 18</td>
<td>Tues</td>
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<td></td>
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</table>

- Each student is given a “countdown” chart to fill in.
- The last date on the chart is the date of the APCS exam.
- Each day on a side board, one student writes in the numbers for decimal, binary, base 4, octal and hexadecimal.
Student Videos

- Rubric
- Students select groups
- Students select topic
- Prepare video
- Example video