

Subject: Glimpse of the Virtual **Science Classes** at Advance Academy's 2020 Summer Camp

Dear parents and students,

We have had a successful start to summer classes in Session I at Advance Academy. AA's mission this summer is clear – bring students a comprehensive and rich curriculum with top notch faculty and first-class instruction.

Even with the continuing epidemic situation, AA students are enjoying courses taught in real-time online on the Zoom platform and Google Classrooms. All of AA's highly recognized teachers have carefully prepared lessons and fully utilized the powerful teaching tools available on software platforms.

Our online classes have also lightened the burden for parents as they plan activities to occupy for their children for the summer. For our students, AA's summer camp classes have allowed them to be productive in a comfortable indoor environment for a long summer without worrying about the transition and disruption of life. They concentrated on the virtual classroom, and completed and submitted homework easily after class.

The following are screenshots of some wonderful **Science** classrooms:

The image shows a Zoom meeting interface. On the left, a slide titled "Sigma and Pi Bonding" is displayed. The slide contains the following text and diagrams:

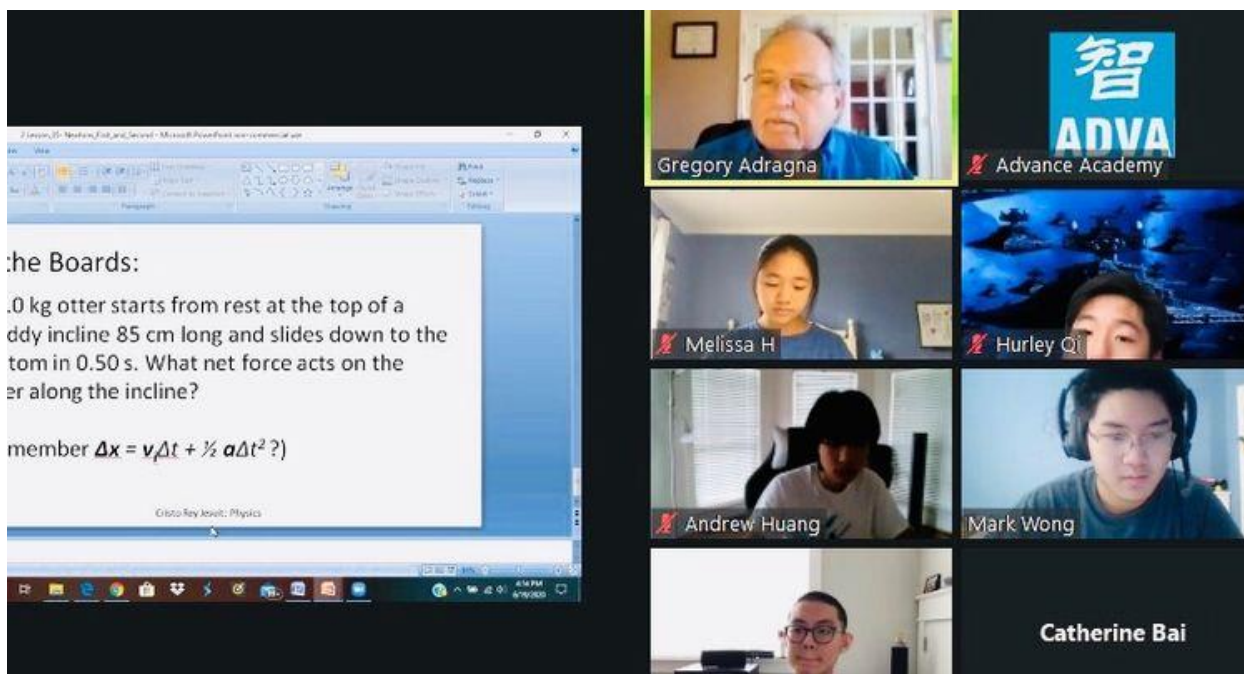
- Sigma Bonding** – head to head overlap of hybrid or unhybridized orbitals\*
- Pi Bonding** – side to side overlap of unhybridized p bonds (contains 2 e- total)

On the right, a grid of video feeds shows several participants:

- Top-left: Sarwat Jafry (video on)
- Top-right: Advance Academy logo (video off)
- Middle-left: Bill Wei (video on)
- Middle-right: elaine chang (video on)
- Bottom-left: luzia (video off)
- Bottom-right: Kelly He (video off)



**Pre-AP and AP Chemistry** - Lead science teacher **Dr. Jafry** holds a Ph.D., member of the upper school faculty at St. John's School since 2003, has taught chemistry for nineteen years. Prior to St. John's School, she taught Chemistry I Honors and Chemistry II AP at Austin High School in Fort Bend ISD. She graduated from the University of Texas at Austin in 1992 with a Bachelor's of Arts in Biochemistry, Master's in Education Administration in 1995 from Southwest Texas State University and a Doctorate in Professional Leadership in 2011 from the University of Houston. During her tenure at St. John's School she has been the recipient of M. D. Anderson Chair in Science and has taught Regular Chemistry and Honor's Chemistry at Rice Summer Camp for many years.



$x = vt$   
 up  
 down  
 left  
 right  
 Constant speed  
 Constant speed  
 $x = vt + b$   
 $x = vt + 5$

$x = -vt$   
 Constant speed left  
 Constant speed right  
 $y = mx + b$   
 $x = vt + 0$

$x = vt - b$   
 $y = mx - b$

3.5 Give a qualitative description of the motion depicted in the following v-versus-t graphs:

a. b.

The slope of the position-time graphs yields the average velocity. When the velocity is constant, the average velocity over any time interval is equal to the instantaneous velocity at any time.

The AREA under the velocity-time curve yields the displacement.

ACCELERATION

Roberto Dimali...

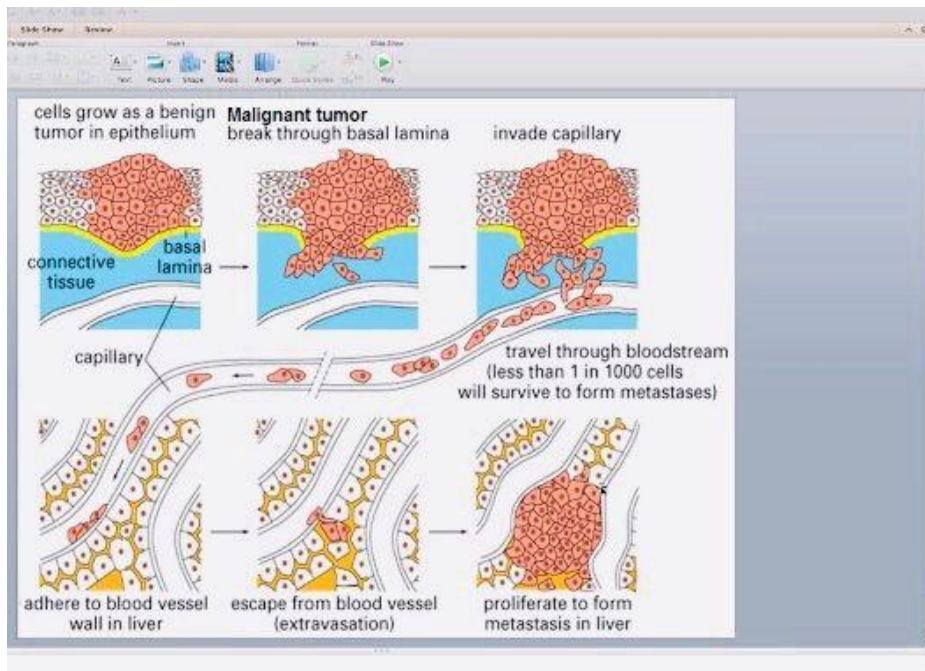
智  
ADVA

Advance Aca...

Franklin Huang

Peter Zhong

**Pre-AP and AP Physics** – Lead science teacher **Mr. D** has about 18 years of teaching Science and Mathematics. He has taught Algebra 1 and 2, Geometry, Pre-Calculus, Calculus, IPC and Chemistry He has likewise been in several research programs funded by National Science Foundation thru University of Houston and Texas A & M University, both as participant and as Master Teacher. He is at present teaching AP Physics 1 and 2 and Pre-AP Physics. His students topped State tests and district tests and has good success in AP testing as well.



Neha Mathur

智  
ADVA

Advance Aca...

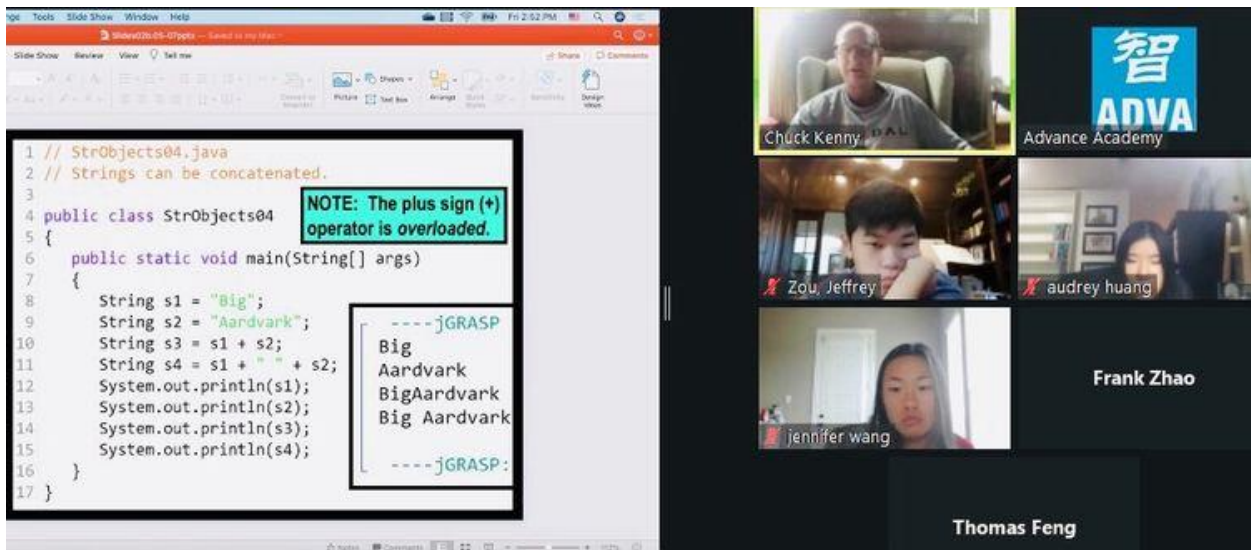
Christopher ...

Baylee Chau





**Pre-AP and AP Biology** – Senior science teacher **Ms. Mathur**, holds a Master Degree of Biology and Chemistry and has more than 18 years of teaching AP Biology and IB Biology and Science at several prestigious international private schools. She is currently teaching upper level Biology at St. John’s School.



The screenshot shows a Zoom meeting interface. On the left, a code editor displays the following Java code:

```

1 // Variables01.java
2 // <int>, <double> and <boolean> are
3 // primitive data types.
4
5 public class Variables01
6 {
7     public static void main(String[] args)
8     {
9         int x = 100;
10        double y = 5.27;
11        boolean z = true;
12        System.out.println(x);
13        System.out.println(y);
14        System.out.println(z);
15    }
16 }
17

```

On the right, a 'Format Background' panel is visible with options for fill types (Solid, Gradient, Picture or texture, Pattern) and a transparency slider set to 0%. Below the code editor, three video thumbnails are shown: Chuck Kenny, Advance Academy (with a logo featuring the Chinese character '智' and 'ADVA'), and Jennifer Wang.


**AP Java Programming and AP Computer Science** - Senior science teacher **Ms. Kenny** is the Computer Science chairperson and serves as an assistant to the Dean of Students at one of Houston's prestigious private schools. He has been teaching Computer Science courses for 28 consecutive years. He has a great passion for seeing his students surpass their expectations in his classroom. He has taught the College Board's high school AP Java A course, along with teaching the AP CS Principles course. Mr. Kenny has taught business software Java, Excel, Database, Web Design software HTML5, CSS (Cascading Style Sheets) and Scratch programming. He is an active member of the Computer Science Teachers Association (CSTA) and regularly attends their annual conference and workshops.

The screenshot shows a Zoom meeting interface. On the left, a PowerPoint slide titled 'Accident Reconstruction' is displayed. The slide content is as follows:

There are three basic types of tire marks:

- **Skid marks**—can be clues to the distance when brakes were applied and the vehicle's speed.
  - When someone brakes suddenly and lock the wheels
- **Yaw marks**—can show a sideways skid.
  - When a car travels in a curved path faster than it can handle and skids sideways
- **Tire scrub**—can determine the area of impact.
  - Made by a damaged or overloaded tire during or right after impact

On the right, six video thumbnails are shown: Noemi Frias, Advance Acad... (with the '智 ADVA' logo), Stefan Chang, Elizabeth Wolf, Michelle Xie, and CRAIG RINGWALD.

<h3 style="background-color: yellow;">Types of Evidence</h3> <p><b>Physical evidence</b> refers to any material items that would be present at the crime scene, on the victims, or found in a suspect's possession.</p> <p><b>Trace evidence</b> refers to physical evidence that is found in small but measurable amounts, such as strands of hair, fibers, or skin cells.</p> <h4 style="background-color: yellow;">What will evidence collected at a scene do for the investigation?</h4> <ul style="list-style-type: none"> <li>• May <b>prove</b> that a crime has been committed</li> <li>• Establish <b>key elements</b> of a crime</li> <li>• Link a <b>suspect</b> with a crime scene or a victim</li> <li>• Establish the <b>identity</b> of a victim or suspect</li> <li>• Corroborate verbal <b>witness</b> testimony</li> <li>• Exonerate the <b>innocent</b>.</li> <li>• Give <b>detectives</b> leads to work with in the case</li> </ul>  <p><small>Source: <a href="http://www3.cmc.man.ac.uk/crimsci/crimsci_tech/crimsci.htm">http://www3.cmc.man.ac.uk/crimsci/crimsci_tech/crimsci.htm</a></small></p>	 <p>Noemi Frias</p>	 <p>Advance Academy</p>
 <p>CRAIG RINGWALD</p>	 <p>Michelle Xie</p>	
		

**Forensic Science and Science Research and Design – Dr. Frias** holds a Ph.D. in Science. She is a resourceful and skilled High School science teacher and advisor with 16 years of experience teaching science and engineering design. She is Gifted and Talented certified and is currently an academic advisor of the ISD. She is enthusiastic and caring with proven success in helping students reach their full potential.

Online registration for Session II (starting on July 6) is still open. Please go to the official website of Advance Academy for more information at [www.AdvanceAcademyHouston.com](http://www.AdvanceAcademyHouston.com), or call 713-777-1688 for details.

I am looking forward to seeing you and wish you a fruitful and rewarding summer.

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