

Marion High School
Student Instructional Packet Assignments
September 8th - September 21st

<p>Student: _____</p> <p>Period: _____</p> <p>Teacher(s): Circle your teacher's name, if more than one teacher is listed below.</p> <p>Teacher 1: E. Williams Email: erwilliams@marion.k12.sc.us</p> <p>Teacher 2: M. McClellan Email: mmcclellan@marion.k12.sc.us</p> <p>Teacher 3: Email: _____</p> <p>Teacher 4: Email: _____</p> <p>Course: __Exploring Computer Science__</p> <p>Teacher Planning Period: __3rd Block__</p> <p>School Number: 843-423-2571</p>	<p>Student:</p> <p>Please put your name and class period on this sheet.</p> <p>You will need to return this sheet and any assignments attached.</p> <p>Circle your teacher's name</p>
<p style="text-align: center;">•</p>	<p style="text-align: center;">Tuesday – September 8th</p> <ul style="list-style-type: none"> • Read Syllabus • COVID-19 Code of Conduct
<p style="text-align: center;">Wednesday – September 9th</p> <ul style="list-style-type: none"> • Review Syllabus from yesterday 	<p style="text-align: center;">Thursday – September 10th</p> <ul style="list-style-type: none"> • Read the STOP, THINK, CONNECT information and complete Word Search at the end.

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<ul style="list-style-type: none"> • Read the Want to see more worksheet and understand what BLUE LIGHT means along with the importance of the "20-20-20" Vision Rule • Review the Computer Crime PowerPoint slides (Quiz on Day 5) 	
<p style="text-align: center;">Friday – September 11th</p> <ul style="list-style-type: none"> • Reading assignment only <ul style="list-style-type: none"> ○ Cyber Security Tips for Students 	<p style="text-align: center;">Monday – September 14th</p> <ul style="list-style-type: none"> • Internet Safety Pledge • Computer Virus (Review Day 2 lesson)
<p style="text-align: center;">Tuesday – September 15th</p> <ul style="list-style-type: none"> • Introduce the Problem Solving Process from Code.org <ul style="list-style-type: none"> • Complete Activity 	<p style="text-align: center;">Wednesday – September 16th</p> <ul style="list-style-type: none"> • Problem Solving Continued • Plan A Trip Activity
<p style="text-align: center;">Thursday – September 17th</p> <ul style="list-style-type: none"> • Activity Guide-What is a Computer from Code.org 	<p style="text-align: center;">Friday- September 18th</p> <ul style="list-style-type: none"> • Activity Guide Inputs and Outputs from Code.org
<p style="text-align: center;">Monday – September 20th</p> <ul style="list-style-type: none"> • Terms and Questions Quiz 	<p style="text-align: center;">Tuesday – September 21st</p> <p style="text-align: center;">Review and make-up any missed days assignments</p>



**Syllabus: EXPLORING COMPUTER SCIENCE
FUNDAMENTALS OF COMPUTING
COURSE CODE: 5061**

- H. PROBLEM SOLVING AND
COMPUTATIONAL THINKING (TO
BE IMPLEMENTED THROUGHOUT
THE
COURSE)
I. FUNDAMENTALS OF
PROGRAMMING

- J. FUNDAMENTALS OF WEB
DESIGN
K. ETHICAL, LEGAL & SOCIAL
ISSUES OF COMPUTING
L. L. COMPUTING CAREERS

**Rules and Procedures Virtual/In
Person**

- **RESPECT EVERYONE**
- Identify a suitable workspace
- Log in 5 minutes before virtual class session begins
- **RESPECT OTHERS**
- Proper Internet usage
- Do not abuse Internet privileges
- Complete and submit assignments
- No posting negativity or bullying
- **RESPECT OTHERS**
- Dress appropriately

- **RESPECT EVERYONE**
- No cursing, vulgar language or inappropriate gestures, memes
- **RESPECT OTHERS**
- Stay focused
- Mute your microphones until it is time to speak
- **RESPECT OTHERS**
- No plagiarism
- Respect school property/equipment

GRADING SYSTEM

- A (90-100)
- B (80-89)
- C (70-79)
- D 60-69)
- F (59 & below)

**Major Assessments of Learning -40%
(Summative)**

**Formative Assessments – 30%
(Formative)**

**Homework/Classwork/Cooperative
Learning/ Bell work- 20% (Formative)
Nonfiction Writing/Reading Response
Journals -10% (Formative)**

Parents and Students

I would like to express my excitement about working with during the 2020-2021 academic school year. I believe students can grow and develop by examining the issues we cover in class. Critical thinking will be emphasized in this course. Also note that if you ever have any questions or concerns, I am available via phone, email or meeting. Thank you for your continued support in educating and empowering students by providing purpose, direction and motivation.



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Day 1

COVID-19: Addendum to Code of Conduct

(Will be added to the beginning of the original Code of Conduct.)

Marion County School District does not discriminate on the basis of color, ethnicity, gender, sexual orientation, gender identity, religion, national origin, disability, ancestry, age, marital status, or veteran status. We reaffirm:

Our Purpose: To educate, prepare and inspire students to be productive citizens in a changing global society.

Our Direction: Preparing all students to live and work effectively, responsibly and productively within our society.

Our Beliefs:

- All students can become productive members of society.
- Education is a partnership among students, families, schools and community.
- Our children are at the center of all decision-making.
- Education should prepare students to succeed academically and socially so they can compete for quality jobs and become productive members of society.
- Each person has intrinsic value and worth and is a unique individual with different needs and abilities.

MCSD continues to adjust our operations and practices based on the crises facing our country and our community. The global pandemic coupled with the racial injustices have deeply affected our students, staff, and families. As we reopen school for the 2020-2021 school year, it is crucial that we redefine our beliefs and expectations for student participation in learning activities and reaffirm our expectations for interactions with staff, students, and activities/behavior that impact the school community. Examples include but are not limited to: social media, applications, and virtual platforms (Microsoft Teams, Zoom, Schoology and Google Suite).

Based on the COVID-19 pandemic, MCSD is offering a variety of instructional experiences for students and families. These opportunities include the following:

- Remote/Virtual Learning (with monthly LEAP check-in week) or MCSD Virtual Academy
- Distance Education: Hybrid (both in-person instruction and at-home instruction)
- Traditional (family model)

Whichever instructional experience your family has selected, our safety and behavior expectations remain the same. We want to operate to ensure we protect each other, e.g., I wear a mask to protect you and you wear a mask to protect me. Some of our enhanced safety expectations for students include: social distancing, handwashing, and wearing masks whenever they are on campus in a face-to-face learning environment. All students should adhere to the safety guidelines provided.

MCSD safety expectations for students:

- Masks must be worn in common areas: hallways, exiting vehicles / bus, playground, cafeteria, etc. While seated in their desks, students do not need to wear masks. If students move around the classroom, masks must be worn.
- Physical / Social distancing (recommended at least 6 feet apart). Students who do not follow social distance requirements may not be able to continue with face-to-face instruction.
- Handwashing / sanitizing will be expected upon entry to school, before meals, and throughout the day.

Student Attendance:

Students are expected to participate fully in their chosen educational model. Attendance will be taken each day of instruction no matter the mode of instruction (in-person, remote, hybrid, virtual). All state truancy guidelines will be followed to include: parent letter, truancy meetings (virtual or in person), and truancy hearings. Further guidelines will be provided to parents once received from the State Department of Education.

Student Conduct:

Classroom teaching methods and expectations for behavior in other shared spaces such as restrooms, hallways, cafeterias, and buses will be altered during the COVID-19 pandemic in order to ensure the safety and well-being of students and staff. Students will be given reasonable opportunities to correct minor infractions, but behavior that puts others at risk or creates ongoing disrupting of other students' opportunity to learn is not acceptable. Students who do not follow requirements may not be able to continue face-to-face instruction.

Digital Citizenship:

Proper behavior, as it relates to the use of technology, is no different than proper behavior in all other aspects of district activities. All users are expected to use the district technology resources in a legal, responsible, ethical, and polite manner. The digital citizenship guidelines are intended to clarify those expectations as they apply to computer and network usage and are consistent with MCSD Board Policy: JICJ - Electronic and Wireless Device.

A student who knowingly violates any portion of the digital citizenship expectations will be subject to suspension of access and/or revocation of privileges on the district's system and will be subject to disciplinary action in accordance with MCSD Code of Conduct. Students will practice responsible use of digital information regarding intellectual property, including complying with software licenses, copyright laws, and all other state and federal laws governing intellectual property.

Students will practice safe and appropriate online behavior including using professional etiquette while communicating online.

Improper use of district technology resources is prohibited including, but not limited to:

- using racist, profane, pornographic, sexually oriented, or obscene language or materials

Day 1

- attempting to send or sending anonymous messages of any kind
- using the network to access inappropriate and/or harmful materials
- bypassing the district's security measures to access sites that are filtered on the district network
- encrypting communications so as to avoid security review or monitoring by the system administrator
- using the network to provide addresses or other personal information that others may use inappropriately
- purposely engaging in activity that may harass, threaten, defame, slander, libel, malign, or abuse another (individual or group)
- forgery or attempted forgery of electronic messages; attempts to read, delete, copy, or modify the electronic mail of other system users or deliberate interference with the ability of other system users to send/receive electronic mail
- using the network for illegal purposes, in support of illegal activities, or for any other activity prohibited by district policy or guidelines

Students will use the technology resources in a positive and responsible manner that promotes creativity, innovation, collaboration, communication, critical thinking, and problem solving. Improper use of the district's technology resources is prohibited including, but not limited to:

- using the network for political activity, financial gain, or commercial activity
- attempting to harm or harming equipment, materials, or data
- changing any computer configurations and/or settings
- installing software, including freeware and file sharing services, without permission from the director of technology or his/her designee
- streaming media, such as radio, games, video, etc., for non-educational purposes
- proxy sites - bypassing or attempting to bypass the filtering device by using sites such as, but not limited to, proxy sites on the district's electronic communications system
- running security programs or utilities that reveal or exploit weaknesses in the security of a system such as password cracking programs, packet sniffers, or port scanners or any other non-approved programs on district technology resources
- otherwise engaging in acts against the aims and purposes of the district as specified in its governing documents or in rules, regulations, and procedures adopted from time to time

Students will understand the negative impact of inappropriate technology use including online bullying and harassment, hacking, intentional virus setting, invasion of privacy, and piracy of materials such as software, music, video, and other media.

Students will log in to the district network and learning management systems using their own login credentials. Account information and passwords, or similar information used for identification and authorization purposes, must be kept private. Passwords should not be written down and left in a location others may find it. The individual in whose name a system account is

issued will be responsible at all times for its proper use. Students will use technology resources cautiously to prevent damage.

Academic Integrity Code:

All students enrolled in MCSD schools, including MCSD Online Programs, or working remotely are held to the same standard as when learning in a traditional school setting. Any dishonesty such as plagiarism, cheating, and/or providing false information is grounds for disciplinary action by the teacher or school administrator.

The following acts are considered dishonest and a violation of the Academic Integrity Code:

- Plagiarism – using other people’s work, ideas, or information without giving credit to the source.
- Work submission through another student’s password – any assignments or projects posed while using another student’s username and password is considered cheating.
- Cheating – using unauthorized material including outside materials or study aides for work completion. Copying another person’s work and using it as your own is considered cheating.
- Performing work or taking a test for another student.
- False information or made up data – submission is considered misleading and dishonest.

WANT 2 More

Day 2

What is the problem?

Blue light is just what it sounds like — it's a type of light that gives off a blue color. Blue light is harmful because it's the highest energy wavelength of visible light. This energy is also able to penetrate all the way to the back of the eye, through the eyes' natural filters.

What can we do?

hiSach



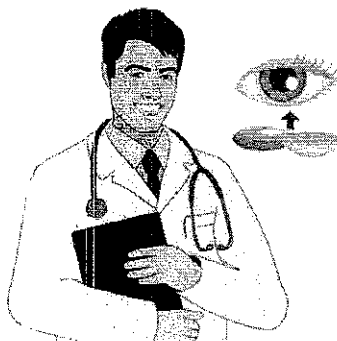
Cut back on TECH before going to bed.

Cutting back on technology 30-45 mins before bed means getting better sleep and being more productive the next day.



BLINK MORE

The easiest way to address digital eye strain is to blink more. It might sound overly simple, but blinking helps to keep eyes lubricated.



Consult Your Doctor

Consult your Ophthalmologists (Eye Doctor) about lenses that can filter blue lights and minimize its effects.

TO PREVENT DIGITAL EYE STRAIN

TAKE A	EVERY	LOOK AT SOMETHING
20	20	20
SECOND BREAK	MINUTES	FEET AWAY

Follow the "20-20-20 Vision Rule".

This exercise engages your distance vision and helps the eye to "reset".

iPhone



Settings



Display & Brightness



Turn ON
the Night Shift

Android, Desktops, Laptops



Download the Blue light filter app

Ten Commandments For Computer Ethics

1. Thou shalt not use a computer to harm other people.
2. Thou shalt not interfere with other people's computer work.
3. Thou shalt not snoop around in other people's files.
4. Thou shalt not use a computer to steal.
5. Thou shalt not use a computer to bear false witness.

Ten Commandments For Computer Ethics (continued)

6. Thou shalt not use or copy software for which you have not paid.
7. Thou shalt not use other people's computer resources without authorization.
8. Thou shalt not appropriate other people's intellectual output.
9. Thou shalt think about the social consequences of the program you write.
10. Thou shalt use a computer in ways that show consideration and respect.

Let Us Review

- What is a computer crime?
- What is a computer virus?
- How are viruses created?
- Name two ways that computer viruses are spread.
- How can we help prevent viruses?
- What is Computer Piracy?
- Copyright: Act of 1976 protects...?

Let's Review

1. What is a computer crime?

A criminal act committed through the use of a computer

2. What is a computer virus?

A program that has been written, usually by a hacker, to cause corruption of data on a computer

3. How are viruses created?

By someone writing a program to cause damage or manipulate information

4. Name two ways that computer viruses are spread.

Contaminated disk and telephone lines

5. How can we help prevent viruses?

- A. Write protect disk
- B. Use Antiviral software
- C. Norton Antivirus or McAfee
- D. Back up original
- E. Never boot from a disk

6. What is computer piracy?

The unauthorized reproduction of a copyrighted work without the consent of the copyright holder.

7. What are some effects of computer piracy?

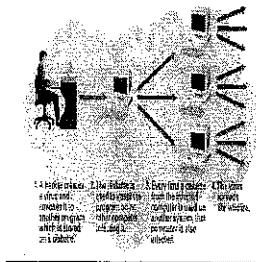
- A. Consumers run the risk of infecting their computer with a virus
- B. Receive not documentation or technical support
- C. May receive fines or possible jail time if caught

Source

- » Pusins-Well, D. and Ambrose, A. (2001) Basics Computer Concepts. South-Western Computer Education.

How Viruses Spread

- Contaminated Disk
- Communication through the telephone lines (Internet)



Prevention

- Anti-viral software
- Write protection on disk
- Backup original copy
- Never boot computer with disk



Other Concerns.

- Privacy
- Security
- Software Piracy



Did You Know?

The penalty for copying software can be up to \$250,000, five years in prison, or both?

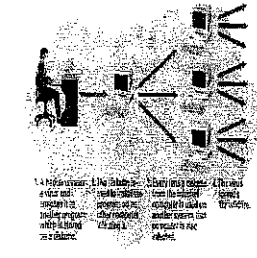
Protection for Technology Injuries

- The Copyright Act of 1976
- Computer Matching & Privacy Protection Act, 1988
- Electronic Communication Privacy Act; 1986:
- Computer Fraud and Abuse Act, 1986:
- Software Piracy and Counterfeiting Amendment of 1983



How Viruses Spread

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Day 3

CYBERBULLYING

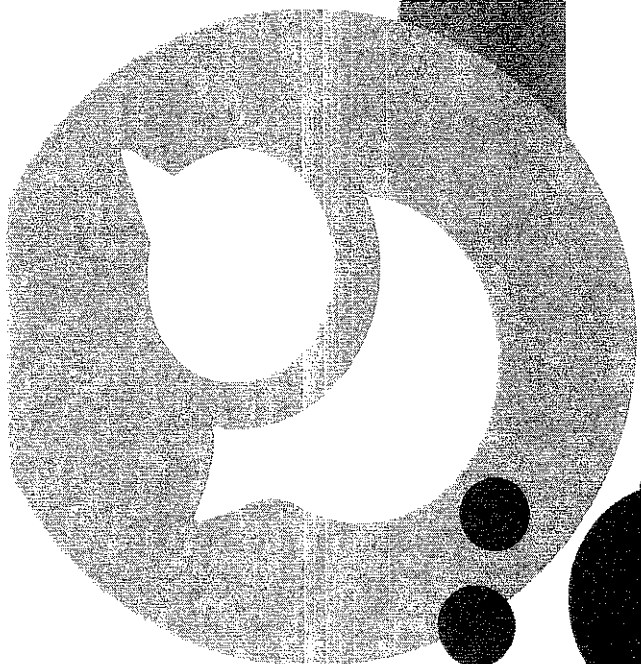
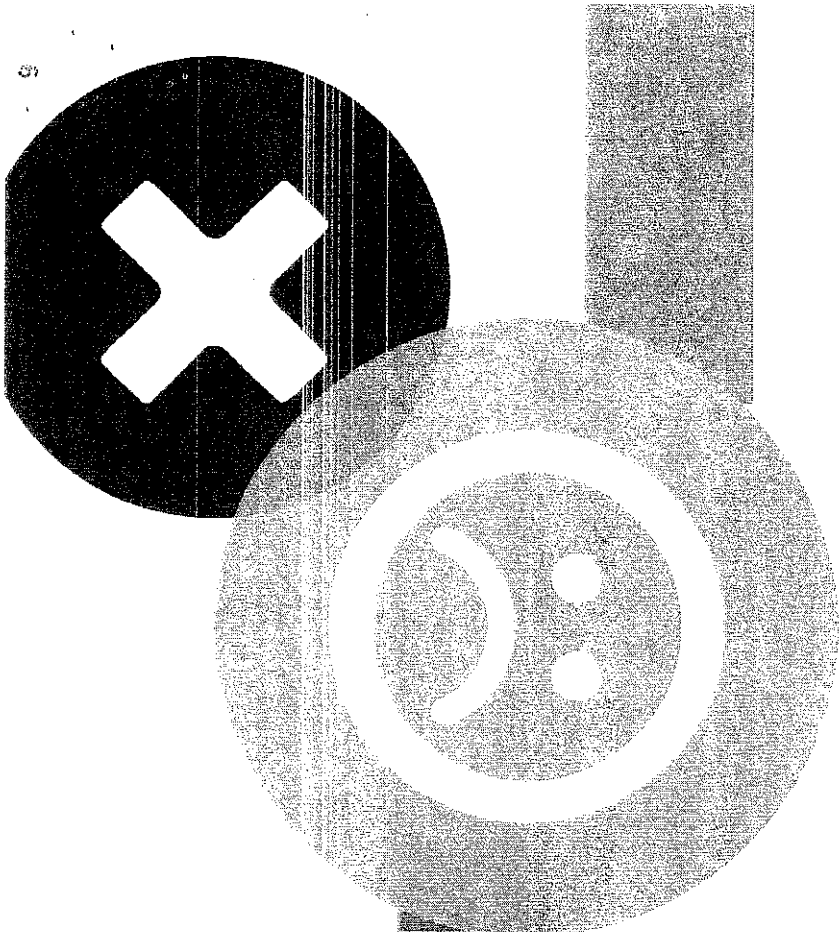
Cyberbullying is bullying that happens online. It can happen in an email, a text message, an online game, or on a social networking site. It might involve rumors or images posted on someone's profile or passed around for other people to see.

You know that, right? So you know that cyberbullying is a lose-lose proposition: it often makes the person being harassed feel bad—and it makes the bully look bad. It also might lead to punishment from school authorities or the police.

What do you do if you witness cyberbullying?
Tell the bully to stop. Most kids don't bully, and there's no reason for anyone to put up with it. This mean behavior usually stops pretty quickly when somebody stands up for the person being bullied.

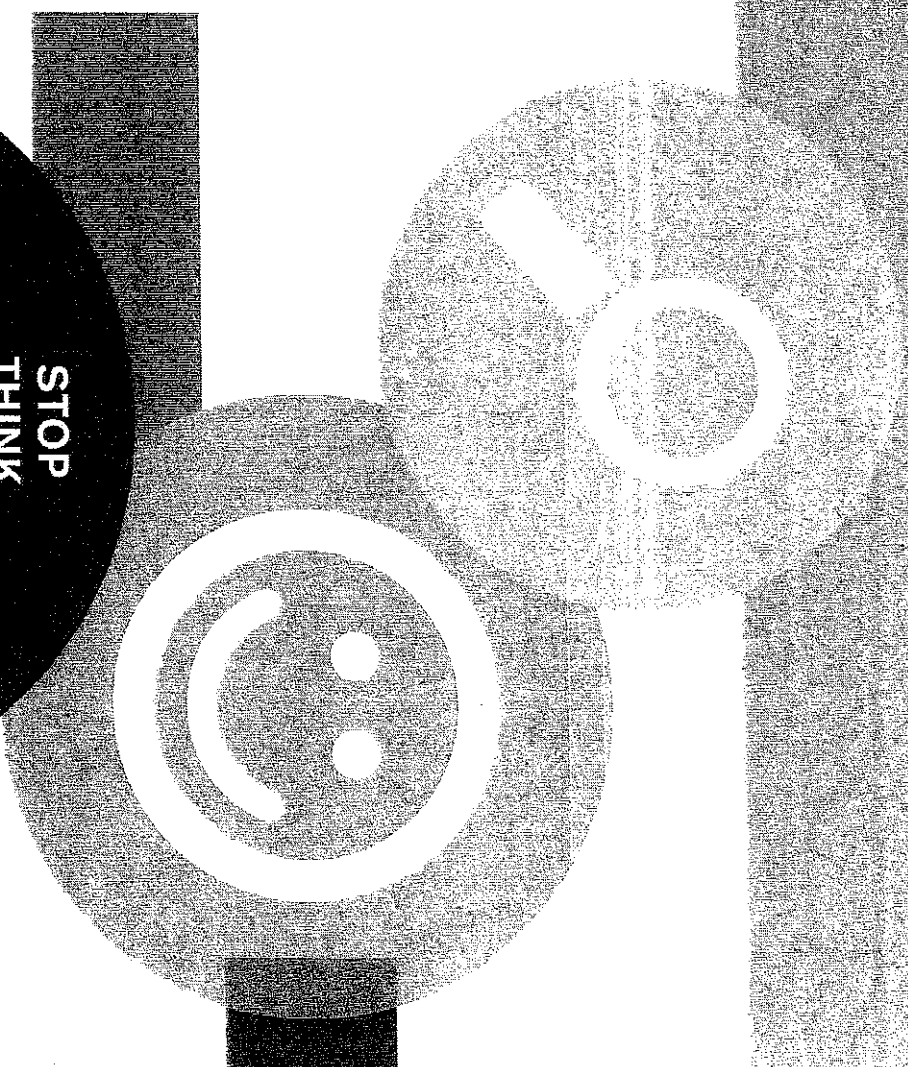
Avoid being a cyberbully and practice good cyber ethics. Follow the Golden Rule: Be nice online and in real life. Don't say or do anything online that you wouldn't do in person. Own what you say and do online.

If something online bothers you, who do you tell?



WORD SEARCH

T T L N A S T O P E E
 T L R S I E I D G A R
 P R I V A C Y P N T A
 D I P L A U T R I V W
 S A G Y O R R S T R Y
 A G O F A I N X X E P
 K P O L I T E N E S S
 N R P P N Y Y W T P V
 I P V S W W S P P E T
 H R E L I F O R P C T
 T C E N N O C D R T P





SOCIAL MEDIA TIPS

CYBERSECURITY TIPS FOR BLOGGERS

Blogging is becoming an increasingly popular pastime among Americans. It is an easy way to share opinions, keep up with family and friends, and connect with others. Whether you blog occasionally or blogging is your full-time job, follow these cybersecurity tips to help keep you and your information safe.

COMMON CYBERSECURITY ISSUES FOR BLOGGERS

- **Data privacy.** Blogging can be a very personal activity, with bloggers sharing their opinions, daily activities, and photos. Sharing these tidbits of personal information may seem harmless, but hackers and other malicious actors can use this information to gain access to your online accounts. People and companies can also take your photos for a variety of uses, including in advertisements or other social media profiles and blogs.
- **Harassment and threats.** Unfortunately, not everyone is nice on the Internet. People, usually acting anonymously, can leave threatening or harassing comments and messages on blogs. Think twice about the information you are posting and be aware that putting information in the public domain may expose you to feedback from others who do not share your views.

SIMPLE TIPS

1. Remember, there is no delete button on the Internet.
2. Keep it private.
3. Keep it anonymous.
4. Control the comments.
5. Protect your blog from hackers
6. Back up your data

7. Report suspicious or harassing activity.

SIMPLE TIPS

1. Keep your personal information private, including the names of your family members, your school, your telephone number, and your address. Turn off your GPS location services and your device's camera when not using them.
2. Avoid sharing your whereabouts online to avoid cyberstalking. Wait to post.
3. Think twice before you post or say anything online; once it is in cyberspace, it is out there forever.
4. Only do and say things online that you would do or say in real life.
5. Speak up. If you see something inappropriate, let the website know and tell an adult you trust. Don't stand for bullying — online or off.
6. Use strong passwords. Don't share your passwords with anyone.
7. Think before you click — don't open e-mails from strangers and don't click on links for unfamiliar sites.
8. Be careful who you friend online.
9. Use privacy settings on social networking websites such as Twitter, Instagram, SnapChat, and Facebook.



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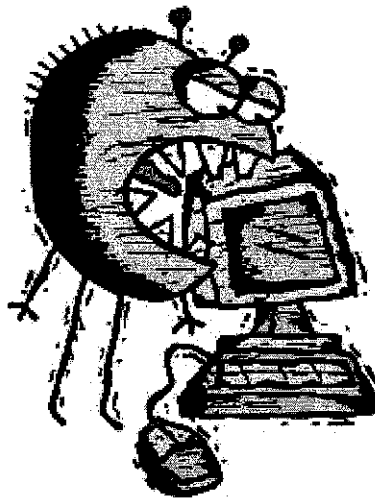
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COMPUTER VIRUSES - Quiz

Matching.

- A. Bomb
- B. E-mail viruses
- C. Worm
- D. Trojan horse
- E. Port Scanner

1. _____ is placed by a human or another program and activated by a trigger such as time or event. Usually does something unpleasant when it goes off.
2. _____ hides on a system and scans the surrounding environment for IP addresses and open ports that it then makes available to other malicious code or individuals.
3. _____ a small piece of software that uses computer networks and security holes to replicate itself. It hijacks email accounts, user IDs, file transfer programs, etc.
4. _____ moves around in e-mail messages and usually replicates itself by automatically mailing itself to dozens of people in the victim's e-mail address book
5. _____ a computer program that claims to do one thing (it may claim to be a game) but instead does damage when you run it (it may erase your hard drive). It enters a system disguised as something else.

Short Answer.

6. Name 2 unethical ways that a computer can be used.

INTERNET SAFETY PLEDGE

1. I will not give out personal information such as my address, telephone number, parents' work address/telephone number, or the name and location of my school without permission.
2. I will tell my parents, teacher, another adult or the law right away if I come across any information that makes me feel uncomfortable.
3. I will never agree to get together with someone I "meet" online.
4. I will not respond to any messages that are mean or in any way make me feel uncomfortable.
5. I will not access other areas or break these rules without permission.
6. I will not give out my Internet password to anyone (even my best friends).
7. I will be a good online citizen and not do anything that hurts other people or is against the law.

I AGREE TO THE ABOVE:

Student Signature

I will help my student follow this agreement and will allow reasonable use of the Internet as long as these rules are followed.

Teacher Signature

Date

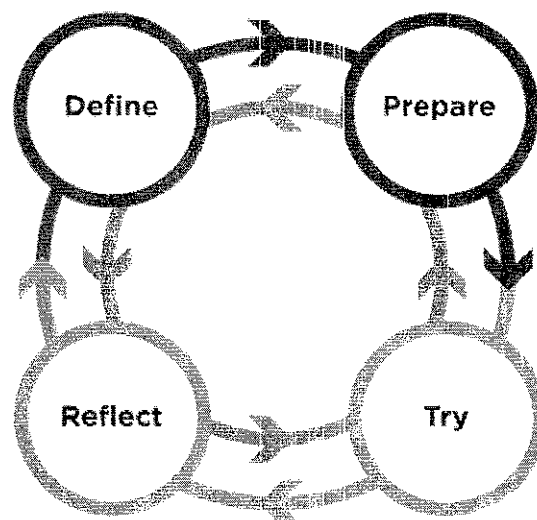
Activity Guide - The Problem Solving Process

C	O
D	E

The Problem Solving Process

Having a strategy for approaching problems can help you develop new insights and come up with new and better solutions. This process is generally useful for solving all kinds of problems.

- **Define**
 - What problem are you trying to solve?
 - What are your constraints?
 - What does success look like?
- **Prepare**
 - Brainstorm / research possible solutions
 - Compare pros and cons
 - Make a plan
- **Try**
 - Put your plan into action
- **Reflect**
 - How do your results compare to the goals you set while defining the problem?
 - What can you learn from this or do better next time?
 - What new problems have you discovered?



What it Looks Like

You're going to list the strategies and processes you and your classmates already use for each step in this process. Fill out the tables below for each of the three problems.

A Problem You Are Good at Solving

You should have brainstormed any type of problem that you are good at solving. Write down the steps of your process that you believe fall into each step of the Problem Solving Process (Example: fixing a car, making dinner, fixing an error on your phone, fixing a game system) Remember you are going through the 4 problem solving steps learned above.

Type of Problem: _____

- **Define**
- **Prepare**
- **Try**
- **Reflect**

What strategies do you use in solving this problem that could help you solve other problems?

A Problem You and a Family or Friend Want to Get Better at Solving

Find a family or friend and talk to figure out a type of problem you both could get better at solving. Fill out the questions below with strategies or steps you would want to use to try to solve this problem using the problem solving process.

Type of Problem: _____

- Define

- Prepare

- Try

- Reflect

What strategies could you use in solving this problem that could help you solve other problems?

Problem Solving Process Learning Continued

Remember the 4 Steps to Problem Solving

Now Let Us Plan a Trip

Overview

Imagine you and your friends will be going on a trip. You've got the entire school day to travel, and you need to get back to school by the end of the trip, but otherwise how your trip goes it up to you. Plan the best trip that you can!

Explore the Tool

(Optional) Head to <https://www.google.com/maps> and search for your school.

Look at the different options for finding directions to other locations. Don't worry about making a plan yet, but make sure you understand what kinds of information are available.

Develop Goals

Brainstorm for a few minutes. What are the most important things about your trip? Do you care what you see? How you get there? How long it takes? What it costs? Write down the goals you'll use to decide what makes a good plan.

Goals	How My Plan Helps Reach this Goal
Trip should only take one school day	
We want to go to _____	
The time we spend getting there should be less than _____	

Make a Route

Every member of your group should separately start planning your trip. You should select what places you want to go and what activities you want to do along the way. For each goal your group chose, list how your trip helps to reach it in the right column. In the space below record all the stops along your trip.

Stops on My Trip

Things We'll See

Share Your Route and Get Feedback

Share the route you developed with your someone and explain why you think it is the best possible route given the goals you chose. Afterwards, record their feedback and reactions to your route in the space below. Is there anything that needs to change? How could your route improve?

Name(s) _____

Period _____

Date _____

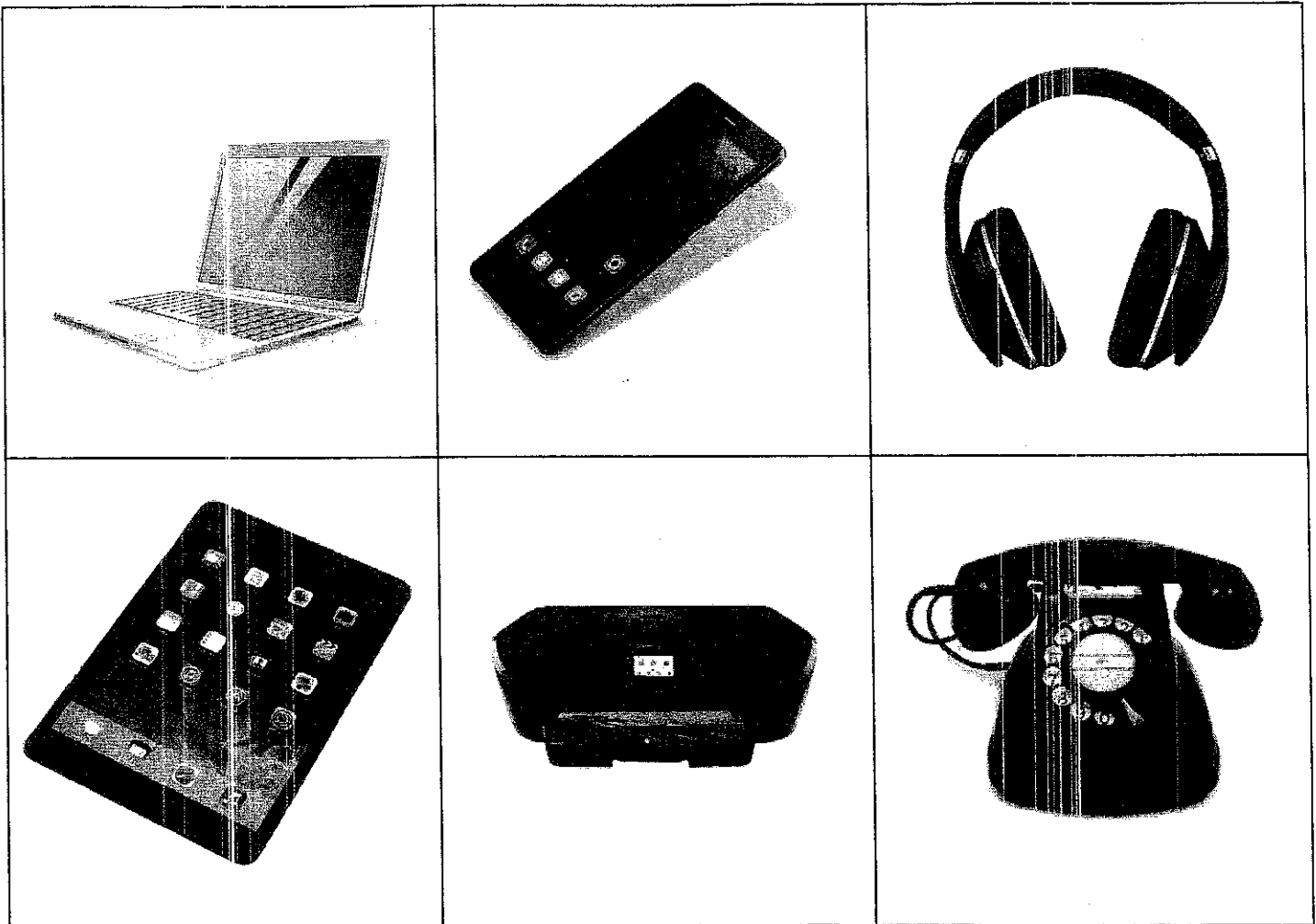
Activity Guide - What Is A Computer? [Set A]

C O
D E

Bell Ringer

Computers are clearly an important part of our lives and help us solve all kinds of problems. I want to think more about the kinds of problems computers help us solve, but first I want to ask an important question. Brainstorm, use your phone, tablet or computer and tell what a computer is?

Under the following pictures, label which is a computer or not a computer



Name(s) _____

Period _____

Date _____

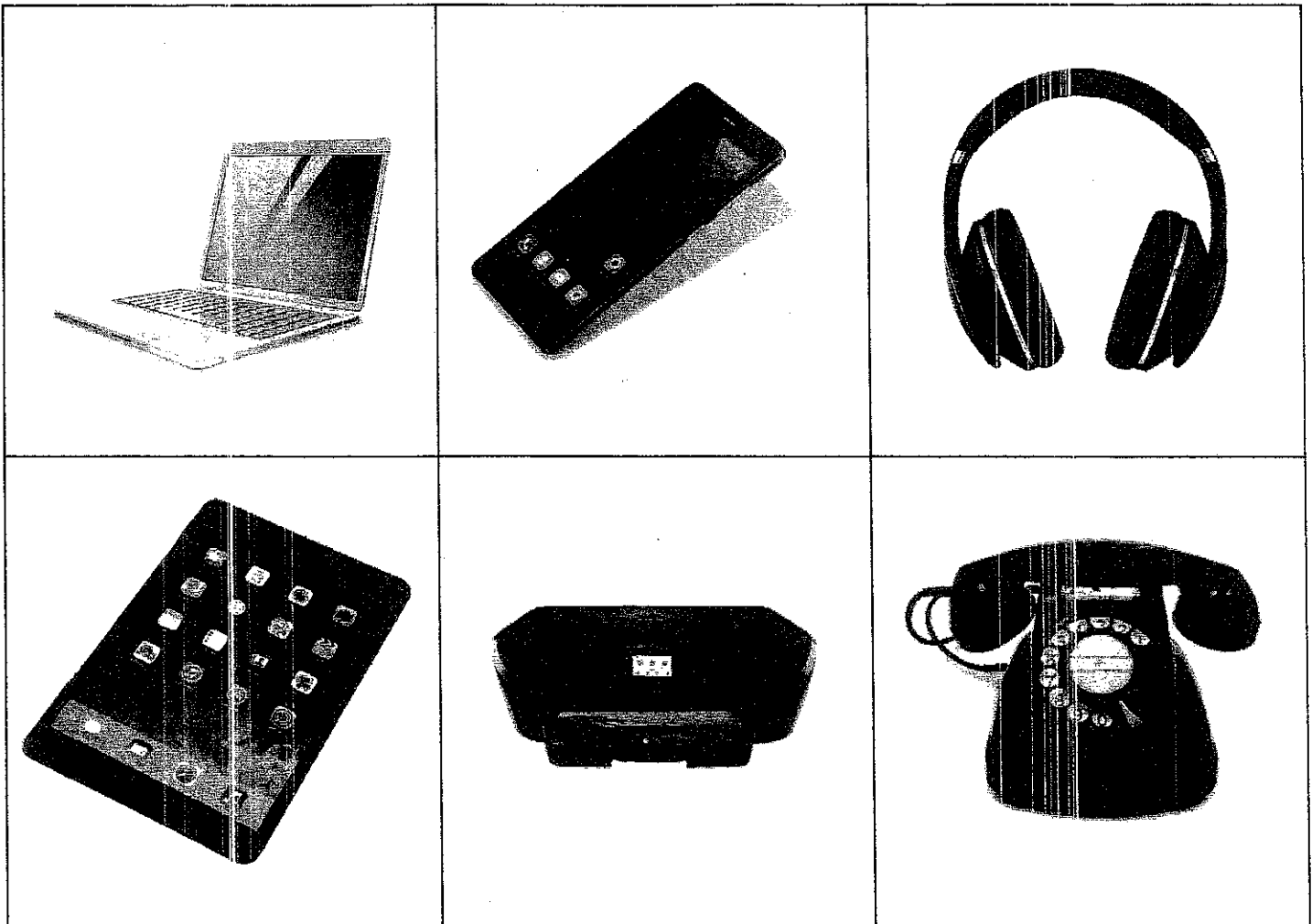
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Under the following pictures, label which is a computer or not a computer



Name(s) _____ Period _____ Date _____

Activity Guide - Inputs and Outputs [Set A]

C O
D E

Bell Ringer Activity

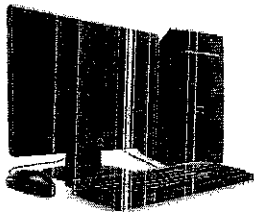
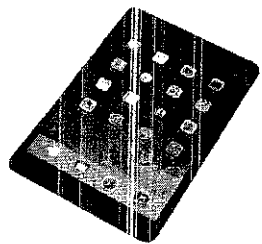
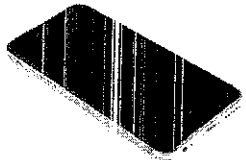
Brainstorm what the input and output components are of different devices. Using your phone, tablet or computer define the two terms listed below as it relates to technology.

Vocabulary

- Input
- Output:

Inputs and Outputs

For each category of computer brainstorm as many inputs and outputs as you can for each device. Examples of inputs and outputs are keyboard, monitor, speaker, touch screen, camera, etc)

Computer	Inputs	Outputs
 <p>Desktop</p>	<p>Ex. Keyboard</p>	<p>Ex. Monitor</p>
 <p>Tablet</p>		
		

Day 10

Name:

Instructor Name:

Date:

Terms & Questions

Over the last few days, you have learned a lot about computer/cyber safety, problem solving and computer components. Define and answer the following.

1. Computer Virus-

2. Computer Crime-

3. Computer Piracy-

4. Blue Light-

5. "20-20-20 Vision Rule"-

6. Cyberbullying-

7. List the 4 steps to problem solving process-