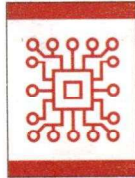


# COMPUTING WOLVES

ELECTIVE ADVENTURE



## SNAPSHOT OF ADVENTURE



A computer is a machine that can be programmed to carry out sequences of arithmetic or logical operations automatically. Most electronic computers use a simple code based on an electronic switch being on or off; this is known as binary. In this

Adventure, get ready to see the inside of a computer and the main parts that make it work.

### REQUIREMENTS

1. Discover the basic components of a computer.
2. Determine how to properly dispose of computer components.
3. Using a digital device application of your choice, create a story that you can share with others.
4. With your parent or legal guardian, set up a policy for safely using digital devices.



• **Elective Adventure**  
• **Scan for this Adventure page**



## REQUIREMENT 1

Discover the basic components of a computer.

Sometimes the best and most fun way to learn how something works is to take it apart. If you have access to an old computer that doesn't work anymore, with the help of an adult, you could discover the basic components of a computer by taking it apart. If you do this, make sure that the computer is not going to be used anymore, that you keep track of all the parts, and that when you are done, you take the parts to a recycling center.

### Desktop Computer



**Motherboard:** The motherboard is the main board that is screwed into the computer case directly. Its function is to connect all the components so that they may communicate and work together.

**Input Unit:** The main function of the input unit is to send commands and transfer data to computers. Later, the data gets processed by the computer's CPU, which generates output. For example, a laptop's keyboard is an input device.

**Output Unit:** The computer's response is relayed through output devices in the form of a visual response (monitor), sound (speakers), or media devices (thumb drives or DVD drives). The function of these devices is to convert the machine's response into a format that the computer user can understand.

**Central Processing Unit (CPU):** The CPU can be regarded as a computer's brain. On a computational level, it processes all of the data. It reads data from the RAM and processes it for the computer to do the tasks it is programmed to do.

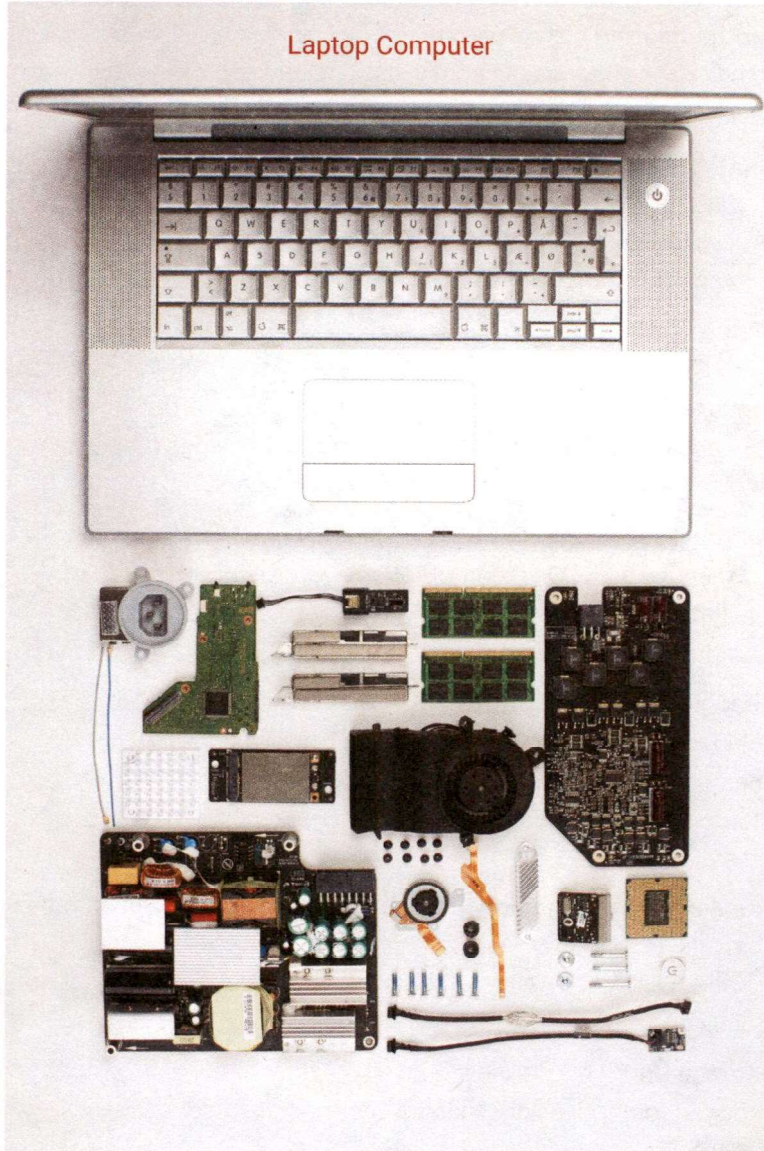
**Graphics Processing Unit (GPU):** GPU is a specialized processor that is created to accelerate graphics processing. It can render many pieces of data, making them ideal for machine learning, video editing, and gaming. Gaming computers have very advanced GPUs.

**Random Access Memory (RAM):** RAM is a form of data storage that allows for faster read and write operations. RAM is also volatile, which means that if the power goes out, it loses all of the data it has stored.

**Storage Unit:** This device stores all the data and the instructions required for processing. It keeps intermediate results of processing.

**Power Supply:** A computer converts electricity from a plug and distributes it to the parts of the computer. Some computers may also have a battery that is used to store power that is not being used and to give it quick access to power when it needs it.

# Laptop Computer



Date

Adult's Signature



## REQUIREMENT 2

**Determine how to properly dispose of computer components.**

Computers do amazing things, and today it takes a lot of energy to build one. Computers are made from plastics, glass, metals, and even very small amounts of gold and platinum. The amount of each of these materials in one computer is small. With hundreds or thousands of computers, it all adds up.

If you just throw a computer in the trash, it will more than likely end up in a dump or landfill, but many of the components are recyclable.

When you take a computer to be recycled, the parts of the computer are separated and then reused to make either more computers or other things. This reduces the number of new materials that have to be used to make new computers. Some materials, like metals, can be used over and over again.

Check to see if there is a computer or electronic recycling center in your community. Maybe your den can plan a visit to see how they recycle computers. The rules about recycling computers or electronics are different in different communities; find out what the rules in your community are. Many places that sell computers or electronics are aware of the local rules about disposing of them.



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Date

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Adult's Signature

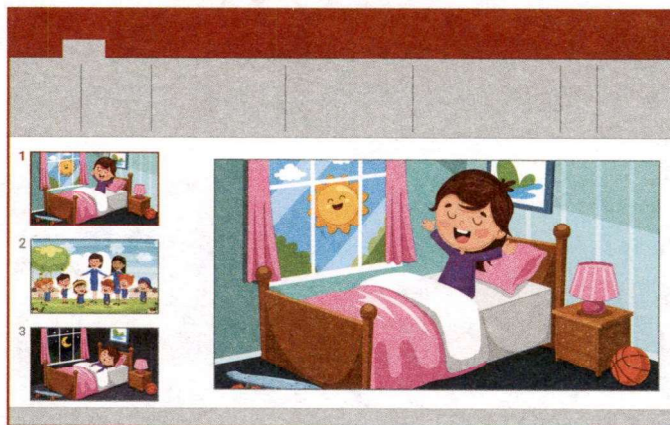
### REQUIREMENT 3

Using a digital device application of your choice, create a story that you can share with others.

You can use a program like Microsoft PowerPoint for a business. You can use a gaming program like Minecraft. With the approval of your parent or legal guardian, pick an application/program to create a simple story you can share with others.

Your story doesn't have to be long. A meme tells a story, usually with just one picture. To get started, think of the three major parts of your story: the beginning, middle, and end. Your story might be how you spent your day.

**Story example:** a Cub Scout waking up, going to a pack meeting, and going to bed.





Now you can go back and add other parts to your story. How did you get to the pack meeting? How many different things did you do at the pack meeting? What did you do before you went to bed? You can add more elements to your story to make it more interesting.

Now share the story you made with your den or family.



Date

Adult's Signature



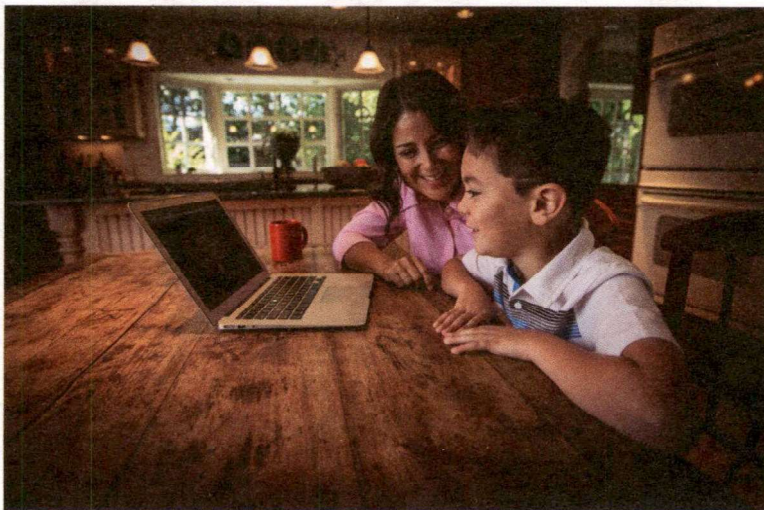
## REQUIREMENT 4

**With your parent or legal guardian, set up a policy for safely using digital devices.**

Your parent or legal guardian needs to know what digital devices you are using, what programs or apps you are using, how you are using them, and when you are using them.

If a device can connect to the internet, you now have access to a lot of information that can be helpful to learn about something new or connect with a family member who is far away.

A device connected to the internet can also allow people you do not know to learn about you. There is some information that you always want to keep private and not share with strangers. Your full name, where you live, what school you go to, and your age are things that even adults should never share with others they do not know.



When you talk with your parent or legal guardian about setting up a policy for your use of digital devices, remember that a Cub Scout is trustworthy. Be honest with them about your devices, how you are using them, and if you have been using them to communicate with anyone you do not know in real life.

### **Establish A Digital Safety Policy**

**Here are some questions that your policy should have answers for:**

- ▶ What devices are you allowed to use?
- ▶ What applications or programs are you allowed to use?
- ▶ What times are you allowed to use them?
- ▶ With whom are you allowed to communicate using your devices?



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Date

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Adult's Signature