

Pro-Vision Academy Charter School
Fourth Grade Distance Learning Plan

Fourth Grade Distance Learning Plan

Week of May 4 – 8, 2020

Math Activities
(Suggested: 45 minutes of off-line activities)

Students that have access to technology and internet access, assignments are in Education Galaxy. Assignments have been created in your account.

If you do not have technology access, complete the assignment on paper and email answers to lcredit@pvacademy.org

Please join the Google Classroom
Code: hwivj5a

Monday – Thursday

Money Word Problems:

Read and answer each question:

1. Jack had \$10.00. He bought a pair of socks for \$2.30 and a pair of gloves for \$5.50. How much money did he have left?
2. A music store is having its “Black Friday” sale. The store will give \$5.00 off for the second item a customer purchases. Emma wants to buy a pair of headphones for \$25.00 and a CD for \$18.50. How much does she need to pay in total?
3. Coffee mugs cost \$2.50 each. How much do 5 coffee mugs cost?
4. Mr. Jackman gives \$32.00 to his four children to share equally. How much will each of his children get?
5. Each student in Grade Four was given 20 raffle tickets to sell to raise funds for their school. The price of each ticket is \$1.50. If Olivia sold all her tickets, how much money did she raise for her school? If there are 30 students in grade 4, and they all sold all of their tickets, how much money was raised altogether?

Pro-Vision Academy Charter School
Fourth Grade Distance Learning Plan

Science Activities
(Suggested: 25 minutes of off-line activities)

Students that have technology and internet access assignments are in IXL (ixl.com/signin/pva). Assignments (**yellow stars**) have been created in your account.

This week: G1

If you do not have technology access, complete the assignment on paper and email answers to lcredit@pvacademy.org

Google Class Code: cymdvsw

Monday - Thursday

Mercury

by Cynthia Sherwood



Mercury is the planet nearest the sun. It's so close that if you were standing on Mercury, the sun would appear two and a half times bigger than what it looks like from here on Earth.

Even the best sunscreen wouldn't be enough on Mercury. The sun's rays are about seven times stronger than on Earth. Mercury is dry, very hot, and practically airless. Mercury is also the smallest planet in our solar system. Because it's often blocked by the glare of the sun, Mercury can be hard to see without a telescope.

Mercury is named after a Roman god who was a messenger known for his speed. As a planet, Mercury moves around the sun faster than any other. It revolves around the sun about once every 88 Earth days.

Mercury is made up of rock with iron at its core. Its surface looks a lot like our moon, with many craters. Radar images from Earth show that craters at Mercury's north and south poles may contain frozen water, or ice. Scientists couldn't believe it at first. Parts of Mercury reach 800 degrees Fahrenheit (427 degrees Celsius), so they definitely didn't expect to find ice! But it turns out the poles of Mercury are always in the shade of the sun, so they remain extremely cold.

By the way, you'd never be able to enjoy a blue sky on Mercury. Because there's no atmosphere, the sky always appears black. You might even see stars—during the daytime!

Pro-Vision Academy Charter School
Fourth Grade Distance Learning Plan

Did you know...

Even though Mercury is the closest planet to the sun, it is not the hottest planet! Venus, the second planet from the sun, has hotter temperatures than Mercury. This is because Venus has a thick layer of clouds that trap in heat like a blanket.

Answer the following questions based on the reading passage.

1. Why is Mercury usually hard to see without a telescope?
2. Mercury is the closest planet to the sun, but Venus is the hottest. Why?
3. Mercury was named after the Roman god of speed. Why is this an appropriate name for the planet?
4. How is it possible for Mercury to have frozen ice?
 - a. Mercury is a cold planet.
 - b. Mercury has a different type of ice that can form in warm temperatures.
 - c. Parts of Mercury are cold because they always face away from the sun.
 - d. Mercury has ice because it moves so quickly around the sun.

5. What does the underlined word mean in the sentence below?

Because there's no atmosphere, the sky always appears black.

- a. layer of air or gas
- b. living things
- c. soil or craters
- d. volcano activity

Technology Applications Distance Learning Plan

Week of May 4 - 8, 2020

Technology Activities

TEKS: 3-5.6.A

Worksheets are available to edit/submit online if you have a computer- open assignment in Week 5 and save it to your computer. Make sure you save all changes as you work. Once you've completed ALL work for the week you can send the document back to me.

If you do NOT have a computer, you can do ALL work on a separate piece of paper, take a picture and send ALL work to me for the week once you have completed it. I will need to know the page number and problem number you are working on, as well, as your answer (ex: page 7 #1).

Packet / worksheets will be located under Week 5 in my Google Classroom.

****Make sure your FIRST AND LAST NAME is on the FIRST page****

Monday/ Tuesday

Read "Computer Programming with Annie and Moby" on pages 1-7.

You will need information from these readings to do the assignments later in the week.

Wednesday/ Thursday

Complete Computer Programming worksheet and quiz on pages 8-9.

Remember to use the readings you had on Monday and Tuesday.

Friday

Make sure ALL work has been turned in! You can submit assignments via Google Classroom or email them to kmorin@pvacademy.org.

Pro-Vision Academy Charter School Fourth Grade Distance Learning Plan

"Computer Programming, with Annie and Moby."

Annie, a little girl, is playing with a coding program. The computer screen reads, "Code it!" above a panel of coding block symbols. Annie adds coding blocks to her program, and presses "go." The screen shows an orange robot walking along a street. The robot bumps into a traffic cone and freezes.

ANNIE: Uh oh, I think I made a mistake in my code.

Annie is sitting at a classroom computer next to her friend Moby, who is an orange robot.

MOBY: Beep?

ANNIE: I'm learning how to code! What is a computer program?
Annie's notebook reads, "What is a computer program?"

ANNIE: A computer program is a set of instructions a computer follows to do something. Writing and drawing tools, games, movie-making tools, and apps on a tablet or phone are all computer programs.

A definition reads, "computer program: a set of instructions a computer follows to do something." Then, four images appear. One image shows an online drawing tool. The second is of a boy playing online chess. The third image shows two kids making a movie, and the fourth image is of a cell phone app of a puzzle game.

ANNIE: Computer programs are used to control robots and space stations, run machines that gather information, and even create special effects in movies. The first image shows the Mars Rover and the International Space Station. The next image shows a medical assistant looks at a scanned image of a brain. The last image shows a computer screen showing an actress dressed like a superhero. She is held up with wires so she looks like she's flying. The screen changes so that it shows the superhero is flying high above a city.

ANNIE: Toys, cars, and even ovens use computer programs!
Images show a remote-control robot toy, a car dashboard, and an oven's digital display.

MOBY: Beep!

ANNIE: Right, Moby! People rely on computer programs every day. A computer program is a list of steps, kind of like a recipe.

Moby and Annie are in a kitchen. Moby's wearing a chef's hat and he's surrounded by

Pro-Vision Academy Charter School

Fourth Grade Distance Learning Plan

flour, sugar, a carton of eggs, wooden spoons, and a mixing bowl. Annie holds up a recipe labeled, "Chocolate Explosion Cake." The recipe shows how to make the cake step-by-step .

ANNIE: The computer follows the steps in order to finish a task.
Moby follows the recipe and stirs, pours, and mixes. The kitchen is a mess of spilled batter and broken eggs.

MOBY: Beep!
Moby holds up a finished chocolate cake.

ANNIE: Writing the step-by-step instructions for a computer is called coding. How do you code?

Annie's notebook reads, "How do you code?" In the kitchen, Moby's chocolate cake is on a big platter.

ANNIE: When you code, you give the computer commands that must be done in a specific order. A command is an instruction for a computer to do one thing. A definition reads, "command: an instruction for a computer to do one thing."

ANNIE: Your instructions have to be very, very clear.

MOBY: Beep?

ANNIE: Let's say I want to write commands about how to eat cake. First take some cake, Moby.

Moby picks up the platter with the cake.

ANNIE: Then eat it.

Moby puts the whole cake, platter and all, into his mouth.
MOBY: Beep.

Moby has cake all over his face. He tries to chew.

ANNIE: Uh, that wasn't very clear. Sometimes when you code, you make a mistake, and that's OK. Just stop and think about how to fix your code or improve it. Let's try again.

Onscreen, the action rewinds, zipping back to the moment just before Moby picked up

Pro-Vision Academy Charter School
Fourth Grade Distance Learning Plan

the cake platter.

ANNIE: First, put a slice of cake on a plate.

Moby puts a slice of cake on his plate.

ANNIE: Next, use a fork to cut off a bite of cake.

Moby gets a forkful of cake.

ANNIE: Lift the fork to your mouth.

Moby lifts the fork to his mouth.

ANNIE: Open your mouth.

Moby's mouth opens.

ANNIE: Eat it.

Moby eats both the fork and the cake.

MOBY: Beep.

ANNIE: Uh, whoops. Identifying and solving errors in a computer program is called debugging.

A definition reads, "debugging: identifying and solving errors in a computer program."

ANNIE: There's a problem with my code so I need to go back and do some debugging.

The action rewinds, zipping back to the moment just before Moby ate the fork and cake. He's holding the fork in front of his mouth again.

ANNIE: Open your mouth.

Moby opens his mouth.

ANNIE: Use the fork to put cake inside your mouth.

Moby puts the forkful of cake in his mouth.

ANNIE: Close your mouth.

Moby's mouth closes around the fork.

ANNIE: Take the fork out of your mouth.

Moby takes the fork out of his mouth.

ANNIE: Chew the bit of cake.

Pro-Vision Academy Charter School

Fourth Grade Distance Learning Plan

Moby chews.

ANNIE: Now, swallow.

Moby swallows.

MOBY: Beep!

Moby gives Annie a thumbs up.

ANNIE: When you code, you create a list of steps for the computer to follow.

Annie's back at the classroom computer. She's playing with the coding program again. The program's orange robot character is facing forward, a few steps away from the traffic cone.

ANNIE: I want this character to run and jump over the cone. These block symbols show actions that the character can take, like moving a step forward or backward, turning to the left or right, or jumping forward.

There is a panel of block symbols at the bottom of the coding program's screen. Each block symbol is highlighted as its action is mentioned: Forward, back, turn left, turn right, and jump forward.

ANNIE: Let's see. . . . First I need to turn the character to the right. Then I want it to take a step forward, then another step forward, and another step forward. Now I want it to jump over the cone.

Annie brings her cursor to the "right-turn" symbol. She drags it down into the game's coding panel. The character turns right. Then she drags down three "forward" symbols, one at a time. The character takes three steps forward. Finally, Annie drags down a "jump forward" symbol. The character jumps over the cone.

ANNIE: When you code, you use different instructions to tell the computer what to do. What are some kinds of programming instructions?

Annie's notebook reads, "What are some kinds of programming instructions?"

ANNIE: Remember, a command is an instruction for a computer to follow. A command might be about moving something, turning something, or playing a sound.

Annie clicks on a button marked, "Cone." A traffic cone appears in the game, and she moves it to the right. Then she clicks on the "turn left" symbol, and the character turns left. Finally, she clicks on a sound button. The character blows a trumpet.

ANNIE: Sometimes, you may want a computer to repeat a set of commands.

Pro-Vision Academy Charter School

Fourth Grade Distance Learning Plan

Annie's back in the kitchen with Moby and the big cake. A plate and fork are in front of Moby.

MOBY: Beep?

ANNIE: I want you to keep eating the cake until you finish your slice.
Moby smiles.

ANNIE: That means repeating the same steps you did before: Use your fork to cut off cake, lift the fork to your mouth, open your mouth, and so on.
Moby cuts off a bite of cake, lifts the fork to his mouth, and keeps following all of Annie's step-by-step instructions.

ANNIE: You've got to repeat those steps until you finish your cake.

MOBY: Beep!

ANNIE: A loop is a set of commands that repeat.
A definition reads, "loop: a set of commands that repeat."

ANNIE: I want my character to move three steps to the cone, jump over it, and then move three steps to the next cone and jump over that.
Annie uses her cursor to drag three "step forward" symbols down to the coding panel. Then she adds a "jump forward" symbol.

ANNIE: I can use a loop to repeat the same set of steps.
The "loop" symbol has a circle with a backward arrow on it. Annie adds this symbol to her coding panel. The loop symbol wraps around the three "step forward" symbols and the "jump forward" symbol.

ANNIE: Together, instructions like commands and loops can be put together to create an algorithm. An algorithm is a set of instructions to do a specific task. My set of instructions on how to eat a slice of cake is an algorithm.

A definition reads, "algorithm: a set of instructions to do a specific task." An image shows Moby, following each cake-eating step exactly as Annie told him.

ANNIE: Other people can follow the same algorithm to do the same task.
Annie's sister Mia is sitting next to Moby, following the same steps to eat cake.

ANNIE: Anyway Moby, coding is so much fun, don't you think?
Annie's in front of her computer.

Pro-Vision Academy Charter School

Fourth Grade Distance Learning Plan

ANNIE: Moby? Where'd you go?

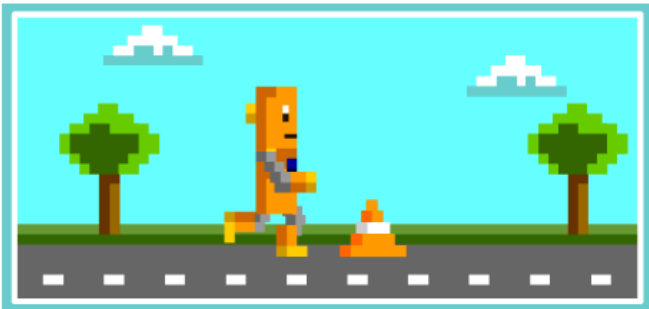
Moby's still in the kitchen, eating cake

ANNIE: Oh no, I forgot to tell him to stop!

MOBY: Beep. Beep. Beep.

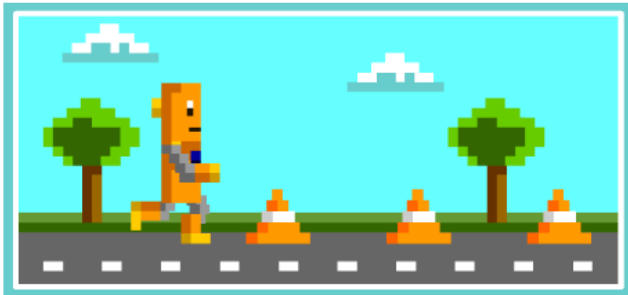
Moby's belly is bulging. He smiles and lifts another forkful of cake to his mouth.

Quiz Questions



1. Which command will get Moby over the cone?

- A. Walk one step to the right.
- B. Walk one step to the left.
- C. Jump up and down.
- D. Jump to the right.



2. Which command can you use to repeat the same steps that get Moby over each cone?

- A. loop
- B. skip
- C. jump
- D. debug

3. Which command shows go left?

Pro-Vision Academy Charter School
Fourth Grade Distance Learning Plan

A.



B.



C.



D.



4. Which does NOT need a computer to work?

A.



B.



C.



D.



5. The **SEQUENCE** of steps in instructions helps the person finish a task correctly. What is a **SEQUENCE**?

- A. a person who writes computer code
- B. the last step in a list of instructions
- C. the order in which things happen
- D. how things are alike and different