

Pro-Vision Academy Charter School
Seventh Grade Distance Learning Plan

Seventh Grade Distance Learning Plan
Week of May 4, 2020

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

TEKS: 7.9A

MONDAY

Have you heard the fairy tale called Goldilocks and the three bears? If not, watch this video about the story and then answer the following questions.

https://img1.wsimg.com/blobby/go/22e9b556-9783-4429-898d-957da653d717/downloads/1bom10p6a_300008.mp4?ver=1582759189766

1. Why is the girl called Goldilocks?
2. The porridge that she ate was not too hot, not too cold, it was _____?
3. The chair that she sat in was not too big, it was _____?
4. The bed she slept on was not too hard, not too soft, it was _____?

On earth, two elements, nitrogen and oxygen make up about 99% of the air we breathe. Most of the remaining 1% is the gas Argon. There are trace gasses (Carbon dioxide and methane) that are known as greenhouse gasses because they act as a barrier to heat leaving the atmosphere. So they trap heat and give us the greenhouse effect. Many people think of the greenhouse effect as something bad, but if we didn't have these gasses the earth would not be warm enough for us to live on.

We can evaluate the effect of greenhouse gasses by comparing Earth with its closest neighbors- Venus and Mars. These planets either have too much greenhouse effect or too little to sustain life as we know it. The differences between the three planets have been named the "Goldilocks Principle" because Venus is too hot, Mars is too cold, but Earth is just right.

TUESDAY

Watch the NASA video, "Getting to Know the Goldilocks Planet" and answer the following questions. https://img1.wsimg.com/blobby/go/22e9b556-9783-4429-898d-957da653d717/downloads/1bom1uhgg_970843.mp4?ver=1582759189766

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1. What is the name of the spacecraft that is finding all the new planets?
2. What two characteristics are needed to be the Goldilocks Planet?
3. Why does being too close to a star prevent an Earth-sized planet from being the Goldilocks Planet?

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WEDNESDAY

Read the following article and answer the questions.

The Goldilocks Planet

Scientists discover a planet that could be "just right" for human life

By [Tyrus Cukavac](#) | October 6, 2010

Could humans ever live on another planet? For many years, scientists have searched for a planet that could support human life like Earth. Last Wednesday, two scientists revealed that they may have found one. It's named Gliese 581g.

The planet is named after Wilhelm Gliese, the German astronomer who first mapped out stars close to Earth in 1957. He found a lot of them, so this solar system's sun is named Gliese 581. Gliese 581g is named "g" because it's the seventh planet discovered in this solar system, and "g" is the seventh letter of the alphabet. But that's a mouthful, so people have already nicknamed this home-away-from-home the Goldilocks planet. Why? While other planets in this solar system are too cold or unbearably hot, this planet may be just right. The distance between Goldilocks and its star puts the planet inside a temperature zone that works well for humans—like Earth's distance from the sun in our own solar system. This also means the planet might contain liquid water, an essential ingredient for life.

It is also believed to have a rocky surface, gravity, and even an atmosphere. Sounds like our planet, right? These characteristics might seem normal to us Earthlings, but scientists have not found many planets that share similarities with Earth.

One key difference between Goldilocks and Earth is that Goldilocks is "tidally locked" to its sun. That means one side of the planet always faces its sun, making that side extremely hot. The other side of the planet is exposed only to the darkness of outer space, making that side extremely cold. So, only a thin portion on the border of the two halves might be suited for life.

Still, Steven Vogt, one of the scientists who discovered Goldilocks, thinks this space is enough. "I would say that the chances for life on this planet are 100 percent."

Even if this particular planet turns out to be a dud, its discovery is a good sign that there might be other Earthlike planets in space. Another planet in the system, Gliese 581d, might also be capable of supporting life. There are a total of 116 stars in Earth's stellar neighborhood, and scientists have examined only nine of them extensively enough to determine whether their orbiting planets could support life. For all we know, the next Earthlike planet might be right around the galactic corner!

1. What is the name of the new planet?
2. Why does it have the letter g after it's name?
3. What does "tidally locked" mean?
4. Where could liquid water be present on this planet?
5. What is important about liquid water?

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THURSDAY

1. Why is Earth considered a “Goldilocks Planet”?
 - a. It has too many greenhouse gases
 - b. It is neither too hot nor too cold
 - c. It has too few greenhouse gasses

2. What do greenhouse gases do?
 - a. Make greenhouses to grow plants
 - b. Trap heat in the atmosphere
 - c. Cause it to be too cold.

3. Which planet in the solar system has too few greenhouse gases to sustain life?
 - a. Venus b. Earth c. Mars

4. Which planet in our solar system has too many greenhouse gases to sustain life?
 - a. Venus b. Earth c. Mars

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

TEKS: 7.4D 7.7A 7.4B

Monday

John rode his dirt bike 45 miles in two hours. At this rate, how many miles will he travel in $\frac{1}{2}$ an hour?

- A. 22.5 miles
- B. 1,350 miles
- C. 11.25 miles
- D. Answer is not here.

Tuesday

Plumbers R Us charges an \$85.00 initial fee and \$40.00 per hour for its service. Which equation can be used to find y , the total cost of plumbing fees for x hours?

- A. $Y = 40x + 85$
- B. $X = 40y + 85$
- C. $Y = 85x + 40$
- D. $X = 85y + 40$

Wednesday

Sid pays 10.75 for 2.5 pounds of steak. What is the price per pound for the steak?

- A. \$.43.00
- B. \$26.88
- C. \$4.30
- D. 4.03

Thursday

Finish assignments on ixl (20 minutes)

Friday

ALL WORK IS DUE ON GOOGLE CLASSROOM