Student Weekly Learning Targets

Over the course of the month, you will be reading and writing to learn about important topics in English, Social Studies, Science, and Math. Each content-area’s study is designed to take you one week. During that week you will be reading a selection and writing a response. The reading selections are attached at the end of the project. You may complete the content-area projects in any order you choose.

Independent Reading

Make a goal to read at least fifteen minutes every day. Your reading can include reading aloud to younger siblings, reading the news, or rereading a book you’ve already read and enjoyed. If you can access the HUB and the Digital Resources, MackinVia has a large digital library of books for independent reading.

After you have read each day, write a response about what you read. Here are some prompts to get started.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Predict</th>
<th>Summarize</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are some things that you are wondering about? What do you want to know?</td>
<td>Use evidence from the book to predict what might happen next.</td>
<td>Retell the important part of what you read. If you want, use “Somebody wanted by so”.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visualize</th>
<th>Connect</th>
<th>Point of View</th>
</tr>
</thead>
<tbody>
<tr>
<td>What did you picture in your mind while you were reading? Why is it important or how does it help you?</td>
<td>Link what you read to your life experiences, what you know, or other things you have read.</td>
<td>If this part of the story was told from the perspective of another character, how would it be different?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personalize</th>
<th>Tell the Author</th>
<th>Important Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you were a character in the story, how would you react or what would you do differently? Why?</td>
<td>What do you want to tell or ask the author? What have they done well? What should they have done differently?</td>
<td>What words, phrases, or sections of text did you read that were powerful or important? Why?</td>
</tr>
</tbody>
</table>

English Language Arts

**Step 1:**
This week in English Language Arts you will be reading and writing poems that use imagery to describe people or places that the poets admire. Today you will be reading a poem, *Jellyfish* by Marianne Moore. When you read the poem the first time, read it to enjoy it and to get the gist of what the poet is saying. After you have read it, write a reflection in the margins about your reaction to the poem and what you think it is about. You can use these sentence stems:

- This poem made me feel…
- This poem made me think about…
- I think the poet is trying to say…

After you have written your reflection, read the poem a second time. While you read it this time, look for strong imagery that helps you build a picture in your mind of the subject and what the poet is trying to say. Underline the strong words or phrases that the poet used to create imagery. After reading and underlining strong words, select the two examples that you think are the best examples of imagery in the poem. Use these sentence stems to explain why.

- This is a good example of imagery because…
- When I read it, it helped me to…

GLOBAL GRADUATE
**Step 2:**
In this step you will be reading a second poem, *Turn, Turn, My Wheel* by Henry Wadsworth Longfellow, that describes a subject with good examples of imagery. When you read the poem the first time, read it to enjoy it and to get the gist of what the poet is saying. After you have read it, write a reflection in the margins about your reaction to the poem and what you think it is about. You can use these sentence stems:

- This poem made me feel…
- This poem made me think about…
- I think the poet is trying to say…

After you have written your reflection, read the poem a second time. While you read it this time, look for strong imagery that helps you build a picture in your mind of the subject and what the poet is trying to say. Underline the strong words or phrases that the poet used to create imagery. After reading and underlining strong words, select the two examples that you think are the best examples of imagery in the poem. Use these sentence stems to explain why.

- This is a good example of imagery because…
- When I read it, it helped me to…

**Step 3:**
The last two days you read examples of poems that used imagery to convey how important a subject was to the poet. Now you will conduct prewriting activities that will help you prepare to write your own poem. The purpose of the poem you will be writing is to describe something that you love or enjoy with vivid imagery by using strong adjectives and verbs, much like the two poems you have read this week. Your poem will have four stanzas or four parts:

- **Stanza 1:** Describe your subject
- **Stanza 2:** Explain how you interact with your subject
- **Stanza 3:** Describe how the subject or interacting with the subject makes you feel
- **Stanza 4:** Provide a suggestion or word of advice to your reader

Use a list to write possible subjects for your poem. After you have generated several ideas, reflect on each one. Rank your ideas based on how much you could talk about or how much you know about the subject. The subject that you write the most about should be the subject of your poem.

Today’s brainstorming is going to focus more on the words that we can use to create imagery in the poem that will help convey our message. Once you have brainstormed strong words in each of these categories of the parts of speech (see the chart below), you will then use them in drafting your poem tomorrow. Don’t forget to consider your subject and the topic of each stanza as you come up with powerful words to use.

<table>
<thead>
<tr>
<th>adjective</th>
<th>noun</th>
<th>verb</th>
<th>adverb (-y words to describe the verb)</th>
<th>prepositional phrase (when, where)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(describing words)</em></td>
<td><em>(person, place, thing)</em></td>
<td><em>(action words)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step 4:**
In this step you will use your brainstorming and the sentence patterning chart to draft your poem. Remember what the four parts of your poem will be about:

- **Stanza 1:** Describe your subject
- **Stanza 2:** Explain how you interact with your subject
- **Stanza 3:** Describe how the subject or interacting with the subject makes you feel
- **Stanza 4:** Provide a suggestion or word of advice to your reader
English Language Arts

After you have written a draft, look at the adjectives you used. Are these words that pop? Identify at least four adjectives and replace them with words you know but words that are also stronger and make a mental picture for your reader. You may want to replace the word even with a description that might make the mental picture stronger. For example, if my poem has the line “my dog is cute,” I could replace cute with charming. Charming is a stronger word and has some cultural connotations connected to it, “Prince Charming”, and it may suggest to the reader that the dog is happy, maybe eager to please. Another way to revise that same line, “my dog is cute”, is to explain one way my dog is cute: “my dog’s big brown eyes stare into my heart, begging for a tummy rub or a bone.” This new sentence not only tells the reader one way that my dog is cute, but it also starts to build the imagery of my dog and the reader’s mental picture.

**Step 5:**
Before you finalize your poem today, you will be revising your poem to ensure you have used strong verbs to continue to deepen your reader’s mental picture. Below is a process and a chart with an example to help you think through revising verbs.

1. Identify one line in your poem with a basic verb and underline it.
2. Consider different, stronger verbs you could use to replace the basic verb.
3. Think about ways that the verb can happen. This might be adverbs that describe the verb or prepositional phrases that tell us where and when the verb happens.
4. Read through the options you have brainstormed and write a revised version of the line.

Here is a chart that you can use to help you think about ways to revise your verb in the sentence to help your reader have a stronger mental image. The text in italics is an example to help show you how to use the chart.

<table>
<thead>
<tr>
<th>Line: My dog chews his bone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other words to describe the verb:</td>
</tr>
<tr>
<td>devours</td>
</tr>
<tr>
<td>gnaws</td>
</tr>
<tr>
<td>wols</td>
</tr>
<tr>
<td>Ways to do the verb:</td>
</tr>
<tr>
<td>devours his bone away from my watchful eye</td>
</tr>
<tr>
<td>gnaws his bone vigorously to get all the flavor</td>
</tr>
<tr>
<td>wols it down his throat at a concerning rate</td>
</tr>
<tr>
<td>Revised line: My dog devours his bone by gnawing it vigorously away from my watchful eye.</td>
</tr>
</tbody>
</table>

After you have revised one line for stronger verbs, revise at least three more verbs in your poem using this process or another process you know. When you have finished revising, reread your poem again to make sure your message is clear. If you can, read it aloud to someone to make sure the message is clear.

Social Studies

**Step 1:**
In this week’s project for social studies you will be reading and writing to learn more about the ratification of the U.S. Constitution. Ratification is the action of formally approving a treaty or agreement which makes the contract valid. Think about what you may know about the history of the U.S. Constitution. Use a chart like the one below to brain dump what you may already know.

<table>
<thead>
<tr>
<th>Importance of the Constitution</th>
<th>Components of the Constitution</th>
<th>Opposition to the Constitution</th>
</tr>
</thead>
</table>

After you have completed your brain dump, read the article *The Debate of Ratification*. This first read is to get the gist, or the big idea, of the article. You may want to underline ideas or words that you think may be important.
Social Studies

After completing the first read, write a reader response about what you think the gist of the article was and what wonderings or questions you have after completing your first read. You might use these sentence stems to get started:

The article was about…
I wonder…

Step 2:
In this step, you will conduct a second read of the same article, The Debate of Ratification. Review your brain dump and reader response from Step 1. Then when you conduct your second close read of the article, read with these two big questions in mind:

1. What surprised me?
2. What changed, challenged, or confirmed my thinking?

At the end of each section of the article, stop and reflect on what you read and think about the two big questions. Then in the margins of the article, make annotations to track your thinking.

After you have completed the second read and made annotations, write a twenty-word summary that explains the important ideas from the article. Using only twenty words means you must select powerful and important words to convey the key points from the article.

Step 3:
Now you will take what you learned from the reading to plan a written response using the ACES framework to answer the question: Which group—the Anti-Federalists or the Federalists—protected the rights and welfare of the people the most? Review ACES below.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Sentence Stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – assertion or argument that states the subject and your opinion</td>
<td>The ___ best protected the rights and welfare of citizens.</td>
</tr>
<tr>
<td>C – Cite evidence such as facts, concrete details</td>
<td>According to…</td>
</tr>
<tr>
<td></td>
<td>For example,…</td>
</tr>
<tr>
<td>E – Explain reasoning by sharing your opinion or commentary on why the evidence matters</td>
<td>This evidence shows that…</td>
</tr>
<tr>
<td></td>
<td>___ is important because…</td>
</tr>
<tr>
<td>S – Summarize</td>
<td>As a result,…</td>
</tr>
<tr>
<td></td>
<td>In conclusion,…</td>
</tr>
</tbody>
</table>

Use the steps above and your annotated article to plan your written response. On a piece of paper, you may want to list A, C, E, S vertically going down the left side of the paper. Then next to each letter, write out the first sentence of that section using the sentence stems and then listing your key points to support or explain that sentence. Here is an example to show what your planning might look like.

| A | The Federalists best protected the rights and welfare of citizens. |
| C | According to the article, the Federalists wanted a strong national government to protect citizens.  |
|   | • protect from unrest  |
|   | • system of checks and balances  |
| E | This evidence shows that the Federalists put actions into their government plan to protect the people.  |
|   | • Saying you want to protect people is not as assuring as taking actions to show how they are protected  |
|   | • Strong plan of central rules keeps everyone responsible, instead of each state making and playing by their own rules.  |
| S | As a result, the Federalists had a stronger plan to protect citizens rights and welfare.  |
Social Studies

Step 4:
Review your planning from the previous step. Then review this checklist for what you must include in your writing:

- □ A clear assertion with a subject (Anti-Federalists or Federalists) and an opinion (strong or weak plan to protect citizens)
- □ At least two pieces of specific evidence from this week’s article
- □ You explain why the evidence matters and how it supports your opinion. (For example, explain why the system of checks and balances is an example of protecting citizens.)
- □ A summary statement that restates your opinion

Use your planning and this checklist to draft your written response. After you have written it, read it aloud to yourself and think about:

- □ Is my argument clear?
- □ Is the evidence I cited the best evidence to support my argument?
- □ Does my explanation of the evidence clearly state why this evidence supports my opinion?

Step 5:
In this final step, you will be revising and completing your writing task. To revise your writing, read it aloud to someone. After you have read it aloud, ask them:

- □ What was my argument?
- □ Did my evidence and explanation make sense?
- □ Was any part not clear or confusing?
- □ What is one thing I could do to make it better?

After reading it and getting feedback, revise your writing to include their suggestions or other things you noticed while you read it. For instance, if you were reading a sentence and stumbled on the sentence, you may need to revise it by adding a word or two or reordering the words to make more sense. Lastly, edit your paper by making sure you have correct capitalization, punctuation, and your best attempt at correct spelling. After you have completed these steps, you should have a complete, final copy of your written argument.

Science

Step 1:
In this week’s project for social studies you will be reading and writing to learn more about what scientists have learned about the novel coronavirus. Think about what you may know already about the novel coronavirus. Use a chart like the one below to brain dump what you may already know, what you want to know, and what concerns you have about the novel coronavirus.

<table>
<thead>
<tr>
<th>What I Know</th>
<th>What I Want to Know</th>
<th>What I am Concerned About</th>
</tr>
</thead>
</table>

After you have completed your brain dump, read the article Excerpt of The Coronavirus: What Scientists Have Learned So Far. This first read is to get the gist, or the big idea, of the article. You may want to underline ideas or words that you think may be important.

After completing the first read, write a reader response about what you think the gist of the article was and what wonderings or questions you have after completing your first read. You might use these sentence stems to get started:
Science

The article was about…
I wonder…

Step 2:
Now, conduct a second read of the same article, Excerpt of The Coronavirus: What Scientists Have Learned So Far. Review your brain dump and reader response from Step 1. Then when you conduct your second close read of the article, read with these two big questions in mind:

1. What surprised me?
2. What changed, challenged, or confirmed my thinking?

At the end of each section of the article, stop and reflect on what you read and think about the two big questions. Then in the margins of the article, make annotations to track your thinking.

After you have completed the second read and made annotations, write a twenty-word summary that explains the important ideas from the article. Using only twenty words means you must select powerful and important words to convey the key points from the article.

Step 3:
Now you will take what you learned from the reading to plan a written response using the CERR framework. This framework will help you craft a written argument to answer the question: What should people do as cities begin to reopen? Review CERR below.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Sentence Stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>C – A claim that answers the question and can be proven.</td>
<td>As cities reopen, people should…</td>
</tr>
</tbody>
</table>
| E – Evidence from the article that supports your claim | According to…  
For example,… |
| R – Reasoning to explain why the evidence supports your claim | This evidence shows that…  
___ is important because… |
| R – State a rebuttal that may be a counter argument and why it is not strong | It may be considered that… however…  
Some people may say… but… |

Use the steps above and your annotated article to plan your written response. On a piece of paper, you may want to list C, E, R, R vertically going down the left side of the paper. Then next to each letter, write out the first sentence of that section using the sentence stems and then listing your key points to support or explain that sentence. Here is an example to show what your planning might look like.

<table>
<thead>
<tr>
<th>C</th>
<th>As cities reopen, people should wear masks and monitor their symptoms.</th>
</tr>
</thead>
</table>
| E | According to the article, people can spread the virus before they know they have it.  
• symptoms can appear 2-14 days after infection |
| R | This evidence shows that the best thing you can do is to avoid getting infected.  
• hand washing is an effective defense  
• masks prevent aerosols from spreading |
| R | Some people may say that there will soon be medication and a vaccine, but those are still months away from being available to the general public.  
• Clinical trials can detect dangerous side-effects and determine if a treatment works safely for most people |
Science

Step 4:
Review your planning from the previous step. Then review this checklist for what you must include in your writing:

- A clear claim that states your answer to the question
- At least two pieces of specific evidence from this week’s article
- You explain why the evidence matters and how it supports your claim.
- A rebuttal that addresses an opposing claim and restates your claim

Use your planning and this checklist to draft your written response. After you have written it, read it aloud to yourself and think about:

- Is my claim clear?
- Is the evidence I cited the best evidence to support my claim?
- Does my explanation of the evidence clearly state why this evidence supports my claim?
- Do I explain and rebuke the counter argument?

Step 5:
In this final step you will be revising and completing your writing task. To revise your writing, read it aloud to someone. After you have read it aloud, ask them:

- What was my argument?
- Did my evidence and explanation make sense?
- Was any part not clear or confusing?
- What is one thing I could do to make it better?

After reading it and getting feedback, revise your writing to include their suggestions or other things you noticed while you read it. For instance, if you were reading a sentence and stumbled on the sentence, you may need to revise it by adding a word or two or reordering the words to make more sense. Lastly, edit your paper by making sure you have correct capitalization, punctuation, and your best attempt at correct spelling. After you have completed these steps, you should have a complete, final copy of your written response.

Math

Step 1:
This week, our goal is focused on what a mathematical solution is, what it means, and all of the different ways it might be expressed or represented. You will be thinking about solutions from a big picture viewpoint.

What do you think a “solution” is? Write a short description of how you would define a solution. Use this sentence stem to help get started: I think a solution is…

When people are usually asked to describe a solution, most of them say it is “an answer.” But that is too simple … a mathematical solution is more than just an answer … it describes a relationship. It might describe one location or many locations. And, for different types of problems, solutions look different.

If you are asked “to solve” something, what does that mean you do? Describe some of the actions you take, or you perform when you “solve” something. Use this sentence stem to help get started: When I solve, I …

To begin our work, let’s reconsider what you do when you solve a problem. Does your description above include any of the following?
Math

- Asking questions
- Determining different ways to do the problem
- Trying to use different tools
- Making mathematical guesses or conjectures
- Seeking out or watching for patterns
- Communicating wonderings or findings
- Making connections to other contents or topics
- Expanding your thinking to “what if” scenarios
- Reflecting on your results

Every time you solve a problem, you should be engaging in one or more of these behaviors. This is what mathematics is all about … it is the heart of solving.

Try the following: Use the digits 1 to 9, at most one time each, to create an equation where x has the greatest possible value.

\[ \square \square + x = \square \square \]

*Problem from Open Middle Problems used through CC BY-NC-SA 4.0*

**Step 2:**
Solve the following problems. Be sure to show all of your thinking as you determine the solution.

- **Grade 6:** \( n + \frac{1}{2} = 7 \)
- **Grade 7:** \( 5n + \frac{1}{2} = 7 \frac{3}{4} \)
- **Grade 8:** \( 5n + \frac{1}{2} = 3n + \frac{7}{4} \)

After you have solved the problem, in your own words, describe the solution by answering these questions:
- What does it represent?
- What does it mean?
- How does it relate the two sides of the equal sign?
- How do you know your “answer” is the solution to the equation?
- How would you graph the solution of your equation? Graph the solution.

**Step 3:**
Solve the following problems. Be sure to show all of your thinking as you determine the solution.

- **Grade 6:** \( n + \frac{1}{2} < 7 \frac{3}{4} \)
- **Grade 7:** \( 5n + \frac{1}{2} < 7 \frac{3}{4} \)
- **Grade 8:** \( 5n + \frac{1}{2} < 3n + \frac{7}{4} \)

After you have solved the problem, in your own words, describe the solution by answering these questions:
- What does it represent?
- What does it mean?
- How does it relate the two sides of the inequality sign?
- How do you know your “answer” is the solution to the inequality?
- How would you graph the solution of your inequality? Graph the solution.
- How is the solution of an equation different than the solution of an inequality?
Math

**Step 4:**
Create a graph and table of values for the following.

- **Grade 6:** \( y = \frac{1}{2}x \)
- **Grade 7:** \( y = \frac{1}{2}x - 1 \)
- **Grade 8:** \( y = \frac{1}{2}(x + 4) - 3 \)

After you have created a graph and table of values, in your own words, describe the solution by answering these questions:

- What does it represent?
- What does it mean?
- How do you know your “graph” is the solution to the equation?
- How does the graph of the equation relate to the solution of the equation?
- How is the solution of an equation given by a table or graph different than the solution of an equation such as the ones given in Step 2?

End of Unit Reflection

During this unit you read and wrote to learn and think deeply about topics in math, science, social studies, and English. Write or record a reflection by thinking about what you learned or remembered by doing the projects. Here are some sentence stems to help you reflect:

*Before this week, I used to think _____. But now I know _____ because _____. One interesting thing I thought about was _____. Something I am still wondering about is _____.*
A Jelly-Fish
by Marianne Moore

“A Jelly-Fish” by Marianne Moore (1909) is in the public domain. Retrieved from CommonLit.org

Marianne Moore (1887-1972) was an American poet and editor. Moore was very fond of animals, and much of the imagery in her poetry comes from the natural world. In this poem, a speaker describes a jellyfish.

Visible, invisible,
A fluctuating charm,
An amber-colored amethyst
Inhabits it; your arm
Approaches, and
It opens and
It closes;
You have meant
To catch it,
And it shrivels;
You abandon
Your intent—
It opens, and it
Closes and you
Reach for it—
The blue
Surrounding it
Grows cloudy, and
It floats away
From you.
English Language Arts Texts

**Turn, Turn, My Wheel**
by Henry Wadsworth Longfellow

“Turn, Turn, My Wheel” by Henry Wadsworth Longfellow (1893) is in the public domain. Retrieved from CommonLit.org.

Henry Wadsworth Longfellow (1807-1882) was an American poet and educator. Longfellow is best known for his poem, “Paul Revere’s Ride.” In the following poem, a speaker describes watching a potter work.

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Turn, turn, my wheel! Turn round and round
Without a pause, without a sound:
So spins the flying world away!
This clay, well mixed with marl and sand,
Follows the motion of my hand;
For some must follow, and some command,
Though all are made of clay!
Thus sang the Potter at his task
Beneath the blossoming hawthorn-tree,
While o’er his features, like a mask,
The quilted sunshine and leaf-shade
Moved, as the boughs above him swayed,
And clothed him, till he seemed to be
A figure woven in tapestry,
So sumptuously was he arrayed
In that magnificent attire
Of sable tissue flaked with fire.
Like a magician he appeared,
A conjurer without book beard;
And while he plied his magic art —
For it was magical to me —
I stood in silence and apart,
And wondered more and more to see
That shapeless, lifeless mass of clay
Rise up to meet the master’s hand,
And now contract and now expand,
And even his slightest touch obey.
The Debate Over Ratification

When the Constitutional Convention ended in Philadelphia in September of 1787, the official records of its proceedings were turned over to George Washington so that he could give them to Congress “if ever formed under the Constitution.” There was nothing certain about whether the young nation would become what the new Constitution would make it. According to the rules of the Convention, the Constitution was to be submitted to the states for approval, or ratification, by state conventions. The debates in Philadelphia were over, but the fight had just begun.

Opponents of the new Constitution were known as Anti-Federalists. They included such patriots as Patrick Henry and George Mason. The Anti-Federalists found several major problems in the new Constitution proposed at the Philadelphia Convention. They argued it would create a central government that would be too strong. As a result, it might threaten individual liberties, such as the right to petition and speak about the government. Anti-Federalists also feared future government leaders might build a strong army and use it to collect unpopular taxes. Finally, the Anti-Federalists believed that the new Constitution gave too much power to the central government at the expense of state governments. They felt that a strong central government might undermine states’ rights, especially regarding issues such as slavery and taxation. The Anti-Federalists wanted a bill of rights in the new Constitution to protect individual freedoms. Anti-Federalists argued they would not ratify the Constitution until the Federalists agreed to add one. Anti-Federalists argued for a plan of government that would, in their opinion, best protect the rights and welfare of the people.

Federalists, on the other hand, supported the new Constitution. Unlike the Anti-Federalists, Federalists like Alexander Hamilton and James Madison argued that a stronger central government was needed to protect the rights and welfare of the people. For example, they believed that a stronger government would protect the nation from domestic unrest. Supporters used Shays’ Rebellion as an example of what could happen within the U.S. without a strong central government. Federalists also argued that a strong central government was needed to control trade and make the nation prosperous. With a weak national government—like the one under the Articles of Confederation—trade with foreign countries could not be regulated. Also, taxes, which would help pay debts, could not be collected. Federalists wanted a strong central government to ensure the economic success of the nation thereby helping all Americans. Finally, Federalists believed that individual liberties would be protected with a strong central government. They argued that under that proposed plan, a system of checks and balances would prevent any one branch of government (or person) from becoming too powerful. Therefore, individual freedoms would be protected and a bill of rights was not needed.

In the end, to obtain the necessary votes for ratification, Federalists promised to add a bill of rights. With this assurance, by the end of 1788, eleven states had voted to ratify the U.S. Constitution.
Excerpt of The Coronavirus: What Scientists Have Learned So Far
By Knvul Sheikh and Roni Caryn Rabin

Much remains unknown about the virus, including how many people may have very mild or asymptomatic infections, and whether they can transmit the virus. The precise dimensions of the outbreak are hard to know. Here’s what scientists have learned so far about the virus and the outbreak.

**How dangerous is it?**

It is hard to accurately assess the lethality of a new virus. It appears to be less often fatal than the coronaviruses that caused SARS or MERS, but significantly more so than the seasonal flu. The fatality rate was over 2 percent, in one study. But government scientists have estimated that the real figure could be below 1 percent, roughly the rate occurring in a severe flu season. Although, about 5 percent of the patients who were hospitalized in China had critical illnesses.

Children seem less likely to be infected with the new coronavirus, while middle-aged and older adults are disproportionately infected.

Men are more likely to die from an infection compared to women, possibly because they produce weaker immune responses and have higher rates of tobacco consumption, Type 2 diabetes and high blood pressure than women, which may increase the risk of complications following an infection.

**How is the new coronavirus transmitted?**

The outbreak grew because of human-to-human transmission. People infected with the virus produce tiny respiratory droplets when they breathe, talk, cough or sneeze, allowing the virus to travel through the air.

Most respiratory droplets fall to the ground within a few feet. People who are in close contact with those infected, particularly family members and health care workers, may catch the virus this way.

Scientists don’t know how long the new coronavirus can live on surfaces, and preliminary research suggests that hot and humid environments may not slow down the pathogen’s spread. Warm weather does tend to inhibit influenza and milder coronaviruses.

Infected people may be able to pass on the new coronavirus even if they have few obvious symptoms, a study in Germany has found. That’s “bad news,” said Dr. William Schaffner, an expert in infectious diseases at Vanderbilt University Medical Center in Nashville.

When people don’t know they are infected, “they’re up and about, going to work or the gym or to religious services, and breathing on or near other people,” he said. Still, a report by the World Health Organization suggests that asymptomatic cases are rare.

**What symptoms should I look out for?**

Symptoms of this infection include fever, cough and difficulty breathing or shortness of breath. The illness causes lung lesions and pneumonia. But milder cases may resemble the flu or a bad cold, making detection difficult.

Patients may exhibit other symptoms, too, such as gastrointestinal problems or diarrhea. Current estimates suggest that symptoms may appear in as few as two days or as long as 14 days after being exposed to the virus.
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<th>Science</th>
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<tr>
<td>Is there a test for the virus? What is the treatment?</td>
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<td>There is a diagnostic test that can determine if you are infected. It was developed by the Centers for Disease Control and Prevention, based on genetic information about the virus provided by the Chinese authorities.</td>
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<td>Once a coronavirus infection is confirmed, the treatment is mainly supportive, making sure the patient is getting enough oxygen, managing his or her fever and using a ventilator to push air into the lungs if necessary, said Dr. Julie Vaishampayan, chairwoman of the public health committee at the Infectious Diseases Society of America.</td>
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<td>Patients with mild cases are told to rest and drink plenty of fluids “while the immune system does its job and heals itself,” she said. Most people with mild infections recover in about two weeks. More than half of those who have been infected globally have already recovered.</td>
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<td>A number of drugs are currently being tested as potential treatments, including an antiviral medication called remdesivir, which appears to be effective in animals and was used to treat the first American patient in Washington State. The National Institutes of Health is testing the drug on infected patient in a clinical trial in Nebraska. The drug's maker, Gilead, has also begun trials at various sites in Asia.</td>
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<td>How long will it take to develop a vaccine?</td>
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<td>A coronavirus vaccine is still months away — and perhaps years. While new technology, advancements in genomics and improved global coordination have allowed researchers to act quickly, vaccine development remains an expensive and risky process.</td>
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<td>After the SARS outbreak in 2003, it took researchers about 20 months to get a vaccine ready for human trials. By the time of the Zika outbreak in 2015, researchers had brought the vaccine development timeline down to six months.</td>
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<td>Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases, said a preliminary clinical trial might get off the ground in as little as three months. But researchers would still need to conduct extensive testing to prove a vaccine was safe and effective.</td>
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<td>How can I protect myself?</td>
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<td>The best thing you can do to avoid getting infected is to follow the same general guidelines that experts recommend during flu season, because the coronavirus spreads in much the same way. Wash your hands frequently throughout the day. Avoid touching your face, and maintain a distance — at least six feet — from anyone who is coughing or sneezing.</td>
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<td>The risk of infection with the new coronavirus in the United States “is way too low for the general public to start wearing a face mask,” said Dr. Peter Rabinowitz, co-director of the University of Washington MetaCenter for Pandemic Preparedness and Global Health Security. But, he added, “if you have symptoms of a respiratory illness, wearing a mask reduces the risk of infecting others.”</td>
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