

SPECIAL ED

LAYERS OF THE ATMOSPHERE



INCLUDES GOOGLE SLIDES



This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader, and loves the sound of piano keys. With some support he is able to do this unit, and enjoys the challenge. He is my tester!!

The Atmosphere Unit for Special Education

By
Christa Joy
Special Needs for Special Kids

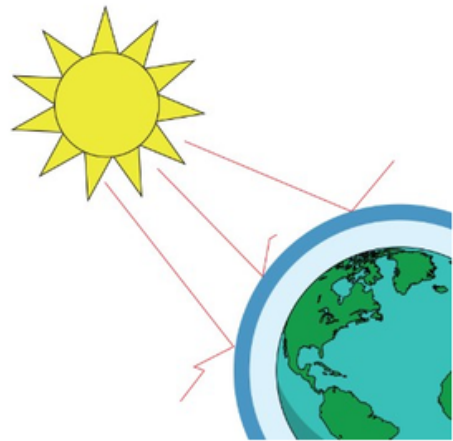


Table of Contents

Worksheet pages	Title
4-5	Vocabulary board
6-10	Vocabulary cards
11-22	Vocabulary cut and paste
23-29	Circle map
30-35	Labeling worksheets
36-39	Sorting activity
40-42	Writing prompt
43-49	Sudoku puzzle
50-51	Word Search
52-58	Cloze worksheet
59-69	Assessment (3 versions)
70-71	Terms of Use

Also included in this resource as separate files:

- Lesson plans
- Links and directions to digital activities
- PowerPoint (**this is the book in the lesson plan**)
- Voice recorded PowerPoint
- Activities in black and white

This unit contains almost 200 pages of material. I have included a detailed lesson plan to help you make the most of everything in this unit including how to add some group activities.

The Atmosphere Lesson Plan

Preparation

- Print out a vocabulary board for each student to use throughout unit
 - Laminate or place in page protector
- Book
 - Print out, laminate, and bind
 - OR your students can listen to the pre-recorded version
- Vocabulary cards
 - Print out a set of cards onto cardstock and laminate
 - Make one set for each student and also one for the teacher to use in I Spy games

Preassessment (do day 1 before starting lesson)

- Choose the form of the assessment that best fits the learning level of your students
- Give the assessment to assess what your students may already know
- I cannot emphasize enough how important this step is. If you want to see growth, this preassessment is so important!!

Teaching Tips

1. *Color Coding*: this is a really easy way to add more structure to a matching activity. Outline or color in an empty box or sorting label. Outline or color in the corresponding picture symbols the same colors. Becomes a color matching task.
 - a. For more info, read more here:
<https://specialneedsforspecialkids.org/2015/09/05/using-color-coding-for-differentiation/>
 - b. I also have a blog post on differentiating one activity 3 ways:
<https://specialneedsforspecialkids.org/2018/10/22/differentiating-1-activity-3-ways-easily-and-effectively/>
2. *Make you own copies of the activities*: Every day I review the activity we did yesterday. For that reason:
 - a. I often complete the activity myself and often laminated it for easy review that I could use year after year.
 - b. My copies were also helpful as either a model for students who needed more support or as a way for more advanced students to self-check their work.

The lesson plans contain:
Overall tips for teaching
students with significant
needs

Quick Look

Day	Activity	Day	Activity
1	<ul style="list-style-type: none">• Book• Vocab cards activity• Circle map	7	<ul style="list-style-type: none">• Book• Vocab cards cut and paste• Sudoku puzzle
2	<ul style="list-style-type: none">• Book• Vocab cards activity• Circle map	8	<ul style="list-style-type: none">• Book• Vocab cards cut and paste• Word search
3	<ul style="list-style-type: none">• Book• Vocab cards activity• Labeling activity	9	<ul style="list-style-type: none">• Book• Vocab cards activity• Close worksheet
4	<ul style="list-style-type: none">• Book• Vocab cards activity• Labeling activity	10	<ul style="list-style-type: none">• Book• Vocab cards activity• Close worksheet
5	<ul style="list-style-type: none">• Book• Vocab cards activity• Sorting activity	11	<ul style="list-style-type: none">• Assessment
6	<ul style="list-style-type: none">• Book• Vocab cards activity• Writing prompt		

The lesson plans contain:

A quick look at what you will do each day

Day 10

Activity	Notes	Materials
Read or listen to a recording of the book (10 minutes)	<ul style="list-style-type: none">• Read through the story, asking lots of questions• Continue to make connections between book and vocabulary board	<ul style="list-style-type: none">• Book• Vocabulary board
Vocabulary cards Bean Bag Toss (10 minutes)	<ul style="list-style-type: none">• Glue the cut apart symbols to the paper plates (one on each plate)• Arrange them around the room• Students toss the bean bag trying to get it to land on a paper plate• Students retrieve the paper plate and share the vocabulary card they retrieved	<ul style="list-style-type: none">• Vocabulary cards• Vocabulary cards cut apart• Small paper plates (you can also use pieces of construction paper)• Bean bags
Close worksheet review (5 minutes)	<ul style="list-style-type: none">• Review the close worksheet completed yesterday	<ul style="list-style-type: none">• Completed worksheet from yesterday
Close worksheet (10 minutes)	<ul style="list-style-type: none">• Complete the close worksheets on the layers of the atmosphere• Use color coding as needed• Make connections to the book and vocabulary	<ul style="list-style-type: none">• Close worksheet• Scissors• Glue
Sharing (10 minutes)	<ul style="list-style-type: none">• Each student shares their finished close worksheet	<ul style="list-style-type: none">• Completed close worksheet• Communication devices

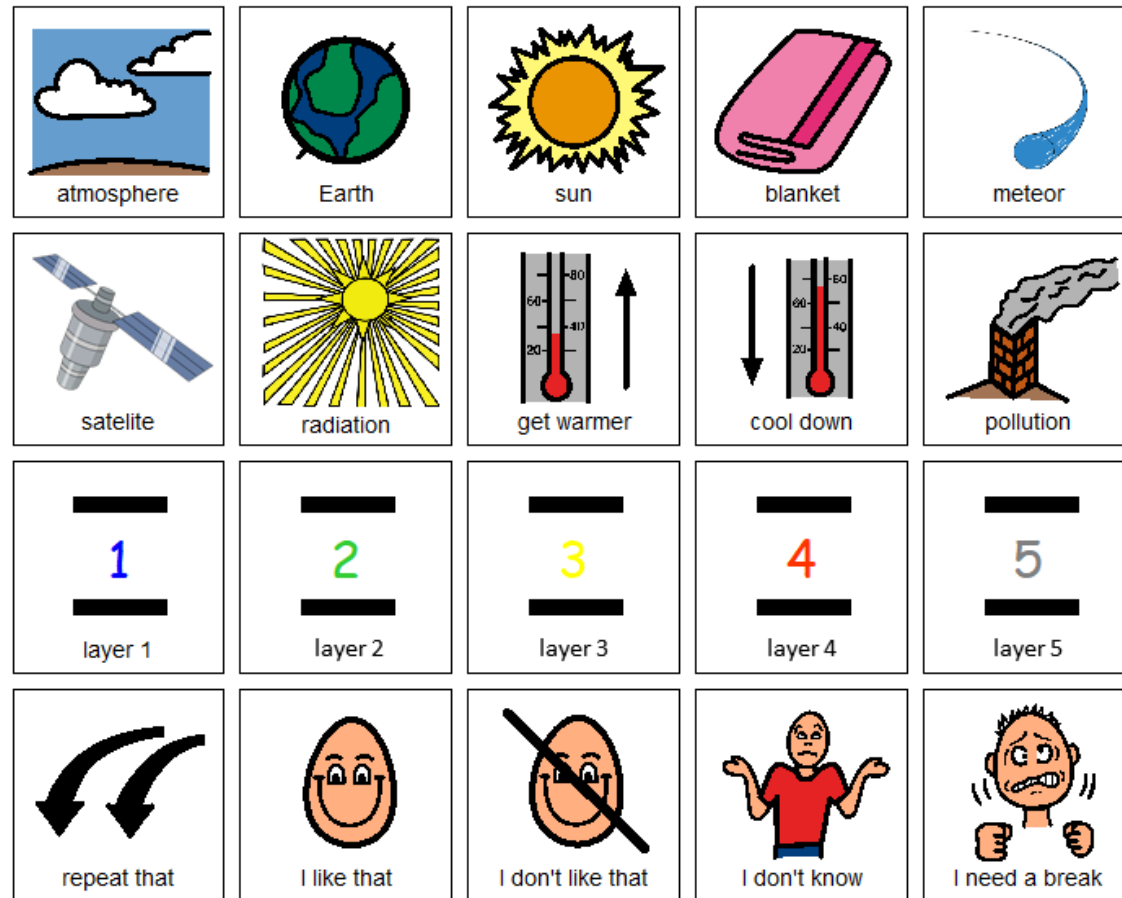
The lesson plans contain:

Detailed instructions on how that day's lesson should run

This unit comes with a vocabulary board.

Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!



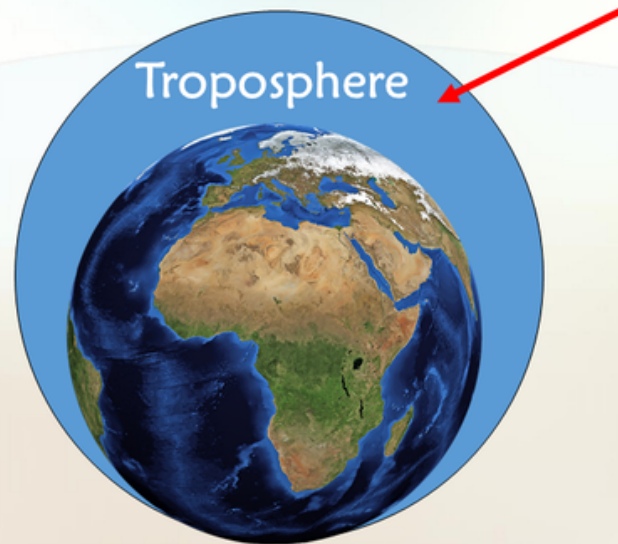
Christa Joy, Special Needs for Special Kids
The Picture Communication Symbols ©1981–2018 by Tobii Dynavox. All Rights Reserved
Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

The **heterosphere** is the outer most region that actually comes in contact with outer space.



©Christa Joy, SNSK

The **troposphere** is the first layer and contains almost all of the atmosphere's water vapor.



©Christa Joy, SNSK

There is a book with this unit using simple text and photos. It is 39 pages and is an overview of the layers of the atmosphere.

It comes in a PowerPoint version as well as a voice-recorded PowerPoint (so you don't have to print it out.) There is also a movie version you can use in google slides.

atmosphere

5 layers of sky that acts like a blanket to protect the Earth.



troposphere

First layer of the atmosphere that contains clouds, birds and where weather is formed.



stratosphere

Second layer of the atmosphere that protects the Earth from the sun's radiation.



Ozone layer

Located in the stratosphere, it contains molecules to absorb and block the harmful radiation from the sun.



mesosphere

Third layer of the atmosphere that protects the Earth from meteors. It is also the coldest layer.



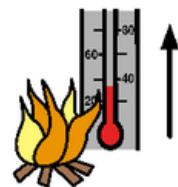
meteor

Large object that flies around in space and can get close enough to Earth to hit it.



thermosphere

Fourth layer of the atmosphere that feels cold, but is really the hottest layer.



exosphere

The fifth of the atmosphere where outer space starts. It is where you find satellites orbiting Earth.



There are 16 vocabulary cards that come in color and black and white.

Included are suggestions for group activities to do with these each day.

satellite

Object made by scientists that go around the Earth to collect information.



radiation

UV light that is given off by the sun and can be dangerous to the Earth and people.



Greenhouse Effect

How the atmosphere keeps the temperature fairly steady by holding absorbing the heat from the sun and holding it in.

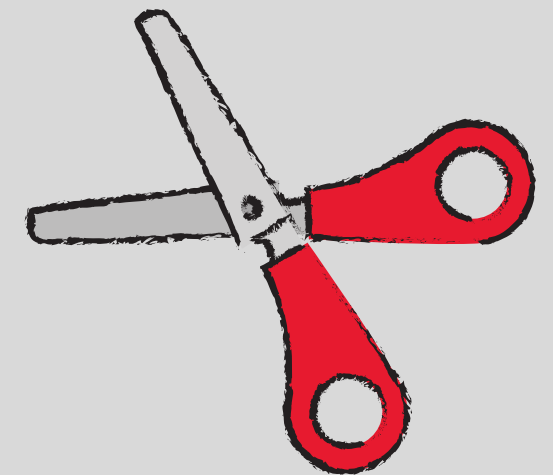


Heterosphere

Very outer region of the atmosphere. It contains the exosphere and the thermosphere.



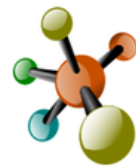
There is an activity where students will match either the picture to the definition or the definition to the picture (harder).



Homosphere



molecule



global warming



pollution



The smallest unit that makes up an object, even air. You cannot see it.

Second layer of the atmosphere that protects Earth from the sun's radiation.

UV light that is given off by the sun and can be dangerous to the Earth and people.

Small parts of dirt and ash that get caught in the atmosphere.

First layer of the atmosphere that contains clouds, birds and where weather is formed.

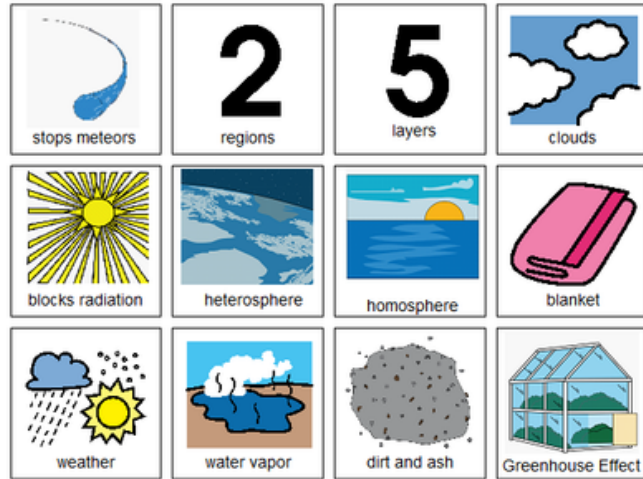
Very outer region of the atmosphere. It contains the exosphere and the thermosphere.

Inner region of the atmosphere, closest to Earth. It contains the troposphere, stratosphere, and mesosphere.

Large object that flies around in space and can get close enough to Earth to hit it.

Location that contains and blocks radiation

Cut apart pictures and place in circle map about the atmosphere.



Cut apart pictures and place in circle map **ONLY IF** they relate to the atmosphere.



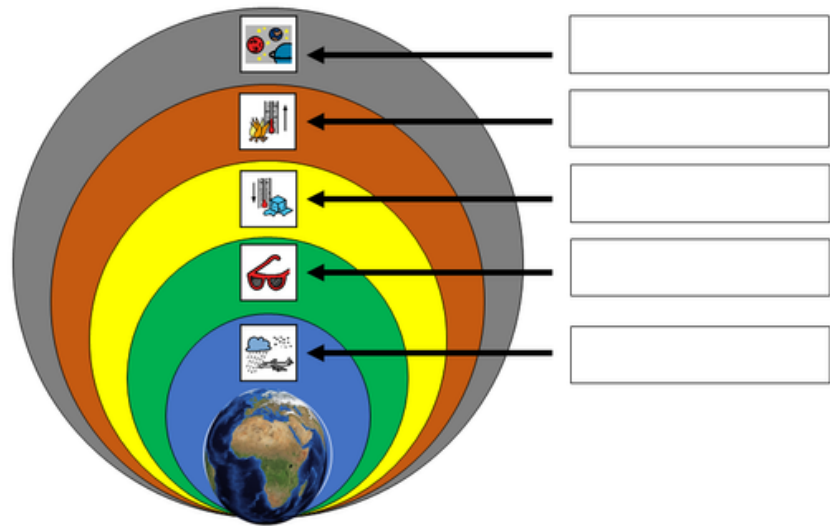
There are 2 circle maps reviewing the atmosphere in general and one on the layers.

Circle maps are a great way for students to see the concept at a glance.

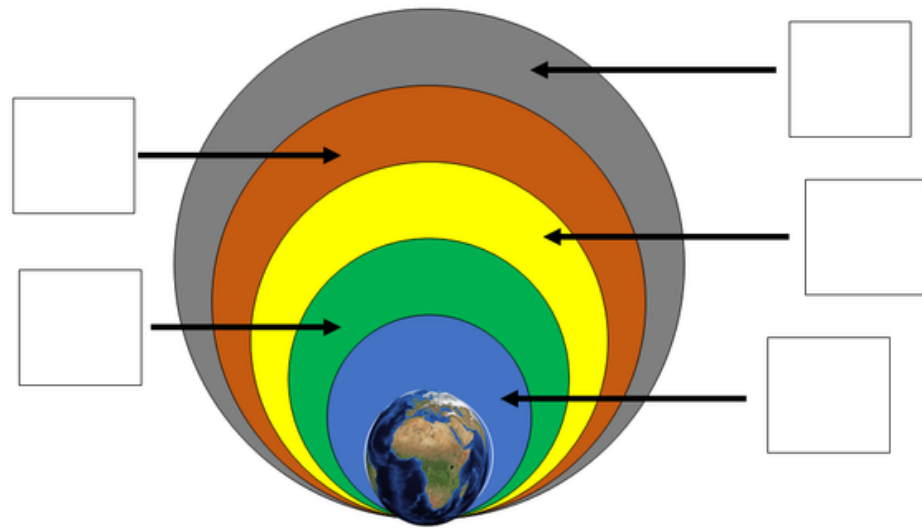
There are 2 versions:

- One is errorless
- One has wrong answers mixed in students will have to set aside

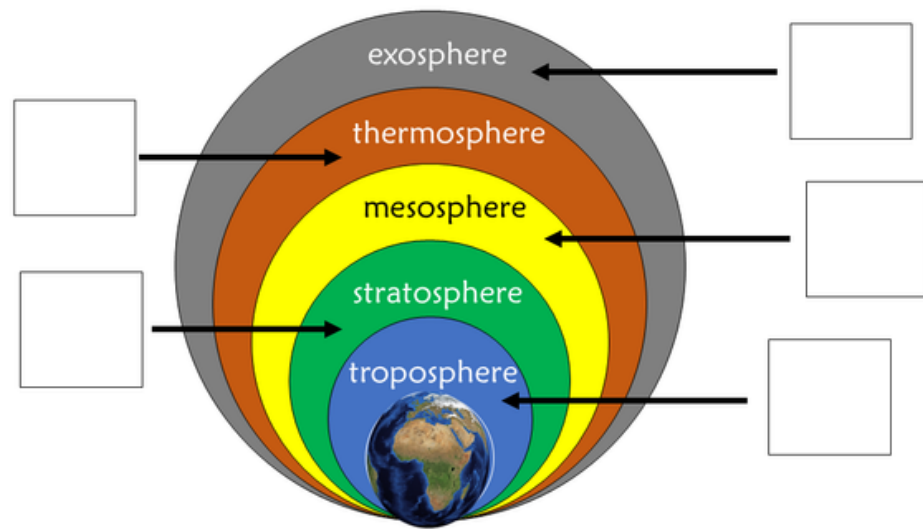




Christa Joy, Special Needs for Special Kids
The Picture Communication Symbols ©1981-2018 by Tobii Dynavox. All Rights Reserved Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

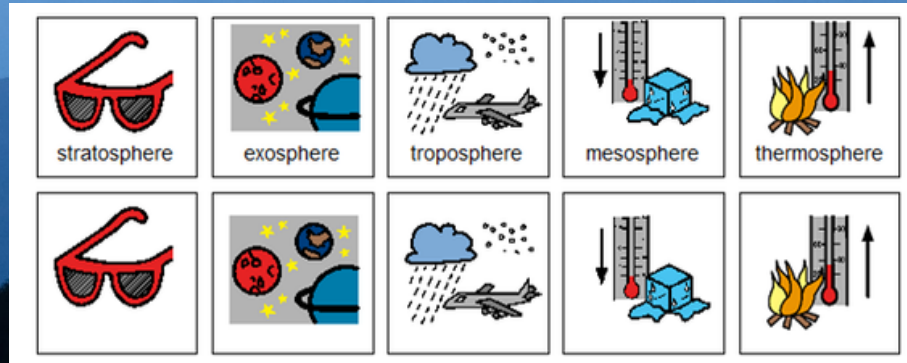


Christa Joy, Special Needs for Special Kids
The Picture Communication Symbols ©1981-2018 by Tobii Dynavox. All Rights Reserved Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

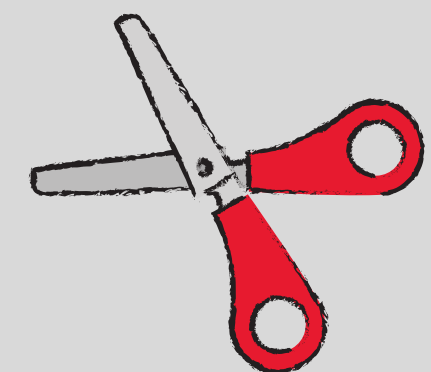


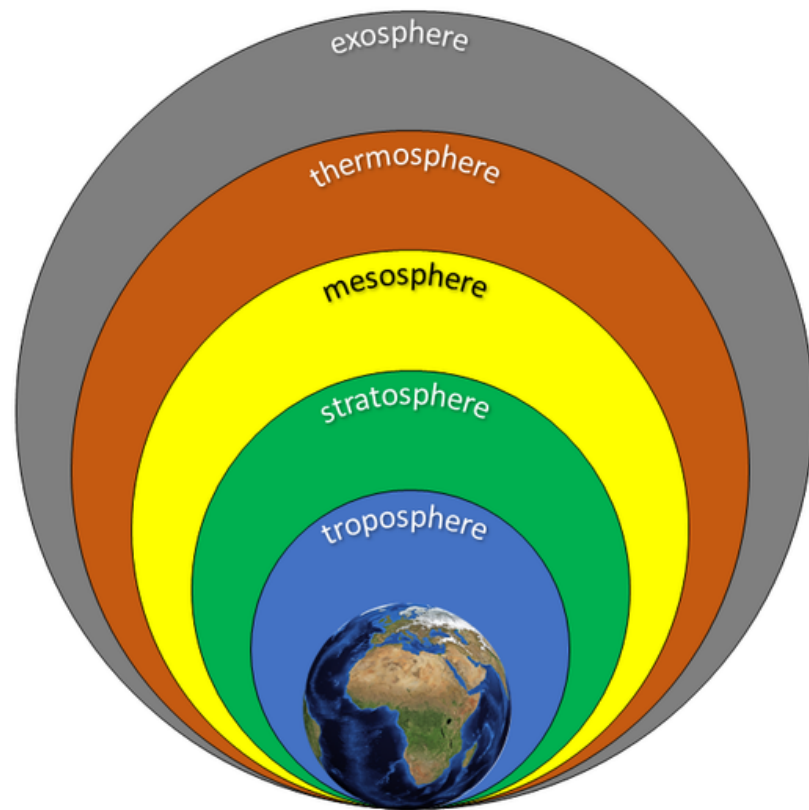
Christa Joy, Special Needs for Special Kids
The Picture Communication Symbols ©1981-2018 by Tobii Dynavox. All Rights Reserved Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

troposphere	thermosphere
stratosphere	exosphere
mesosphere	



There are 3 labeling activities using either words or words with pictures. There are different levels of support in each activity.

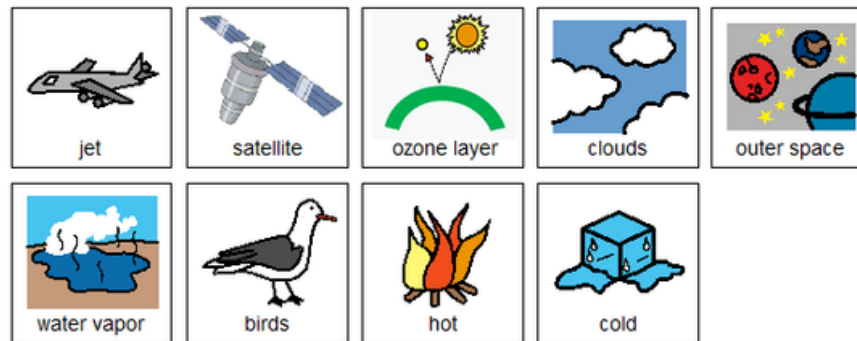




Christa Joy, Special Needs for Special Kids
 The Picture Communication Symbols ©1981–2018 by Tobii Dynavox. All Rights Reserved
 Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

There is also a sorting activity comparing what you find in each layer of the atmosphere. Suggestions for differentiation are included.

Place the following items where you think they would be found in the layers of the atmosphere. Some could go in more than one layer.



Going on a Trip

Place a sticker where you would like to visit.



1. When I arrived, the weather was .

2. I am pretty sure it was .

3. Luckily, I brought with me.

4. All the people there were .

Have students pick one or more pictures for each question to complete the writing prompt on the previous page. They could also come up with their own answers!

1

hot	freezing	windy	raining	snowing	perfect
-----	----------	-------	---------	---------	---------

2

summer	spring	autumn	winter	wet season	dry season
--------	--------	--------	--------	------------	------------

3























coat	mittens	hat	umbrella	sunscreen	shorts
------	---------	-----	----------	-----------	--------

4

swimming	skiing	sledding	fishing	playing outside	flying a kite
----------	--------	----------	---------	-----------------	---------------










There is a writing prompt in this unit. Students will write a story about going on. This is an errorless activity.

Atmosphere

		 atmosphere		 ozone layer	
 global warming	 pollution	 satellite		 atmosphere	 radiation
 atmosphere	 ozone layer	 pollution	 radiation		 satellite
	 satellite	 global warming		 pollution	
 ozone layer	 atmosphere		 pollution	 satellite	
 pollution	 global warming				 atmosphere















Christa Joy, Special N
The Picture Communication Symbols ©1981
Worldwide. Used with permission. Board

Atmosphere

	 global warming		 atmosphere
 radiation	 atmosphere		 global warming
 atmosphere			
	 radiation	 atmosphere	 ozone layer

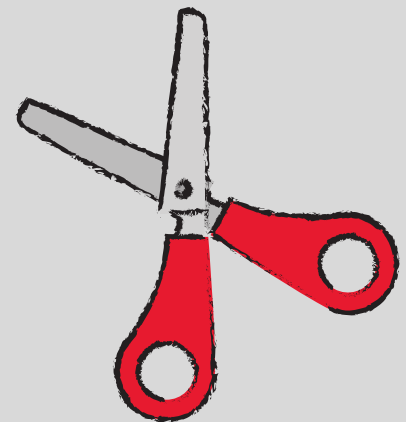
Special Kids
Tobii Dynavox, All Rights Reserved
is a trademark of Tobii Dynavox

Place the following images in the empty squares on the previous page, completing the sudoku puzzle.

 atmosphere	 ozone layer	 ozone layer	 ozone layer	 satellite
 satellite	 radiation	 radiation	 radiation	 radiation
 global warming	 global warming	 global warming	 pollution	

There is a Sudoku puzzle in this unit as well. This is a great way to work with the new vocabulary!!

There are 2 versions plus answer keys.



Atmosphere

NWYWOFATRBPNMVD
ATMOSPHEREPDCWE
ZOXLLEXOGYWNTVR
MXCAKKDRJUPRHXG
TNTROPOSPHEREIX
HPOLLUTIONXSRRO
OEXOSPHERETKMAM
MPCXQSJRECXQODO
OFSATELLITEZSIL
SRKMOVLQLFWQPAE
PXFETSEBZZOQHTC
HEUDMHCUGXCDEIU
EXGPOLJZALIPROL
RSMFFHZDAXMDENE
EHETEROSPHEREWE

heterosphere	thermosphere	troposphere	atmosphere
exosphere	homosphere	satellite	radiation
pollution	molecule		

Atmosphere

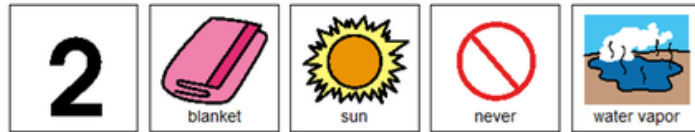
NWYWOFATRBPNMVD
ATMOSPHEREPDCWE
ZOXLLEXOGYWNTVR
MXCAKKDRJUPRHXG
TNTROPOSPHEREIX
HPOLLUTIONXSRRO
OEXOSPHERETKMAM
MPCXQSJRECXQODO
OFSATELLITEZSIL
SRKMOVLQLFWQPAE
PXFETSEBZZOQHTC
HEUDMHCUGXCDEIU
EXGPOLJZALIPROL
RSMFFHZDAXMDENE
EHETEROSPHEREWE

heterosphere	thermosphere	troposphere	atmosphere
exosphere	homosphere	satellite	radiation
pollution	molecule		

There is also a word search to work with vocabulary. If your students cannot do a word search, have them highlight the circle words on the answer key.

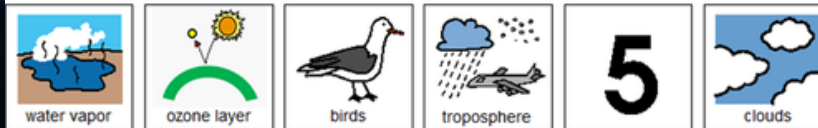
The Atmosphere

1. The atmosphere is made of regions, the Heterosphere and the Homosphere..
2. The atmosphere acts like a big around the Earth.
3. The atmosphere keeps the heat from the near the Earth to keep temperatures stable.
4. Meteors almost reach the Earth's surface.
5. The sky is blue because of all the trapped in the atmosphere.



Layers of the Atmosphere

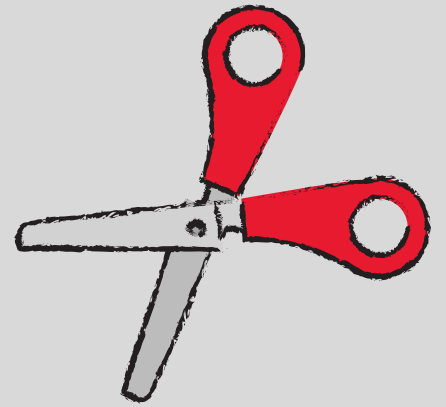
1. There are layers of the atmosphere.
2. The is closest to the surface of the Earth.
3. You will find and in the troposphere.
4. Almost all of the in the atmosphere is in the troposphere.
5. The second layer is the stratosphere, and this is where the is located.



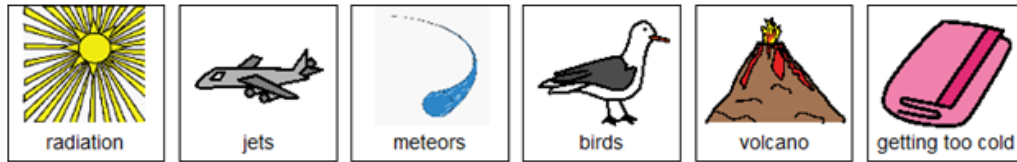
The Picture Communication Symbols ©1981-2018 by Tobii Dynavox. All Rights Reserved Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

Close worksheets are a great informal assessment. There are 2 worksheets on the atmosphere and 2 layers on the specific layers. They cover the facts covered in the book.

Answer key included.



1. The atmosphere protects the Earth from: (circle all)



2. What makes the sky look blue?



3. How many layers are in the atmosphere?



4. What is the name of the layer closest to the Earth?



5. What is the name of the layer farthest from the Earth?



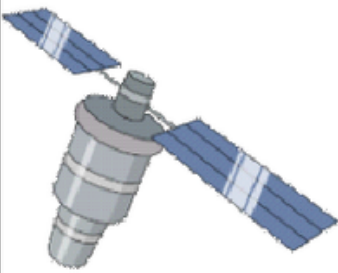





FINALLY the assessment!! There are 3 versions. This version has 10 questions with 3 picture choices for each question.

Answer key included.

Print onto cardstock or mount on index cards. Cut pictures apart and show student answer choices for each question.

Q 7

 <p>birds</p>	 <p>clouds</p>	 <p>satellite</p>
 <p>water vapor</p>	 <p>stars</p>	 <p>helicopter</p>

With this version, you cut out the answer choices and glue them on index cards. Ask the student the question, and they point to the correct answer.

1. The atmosphere protects the Earth from: (circle all)
 - A. Radiation
 - B. Jet
 - C. Meteors
 - D. Birds
 - E. Volcano
 - F. Jet
2. What makes the sky look blue?
 - A. Paint
 - B. Water vapor
 - C. Outer space
3. How many layers are in the atmosphere?
 - A. 10
 - B. 7
 - C. 5
4. What is the name of the layer closest to the Earth?
 - A. Troposphere
 - B. Exosphere
 - C. Thermosphere
5. What is the name of the layer farthest from the Earth?
 - A. Mesosphere
 - B. Stratosphere
 - C. Exosphere
6. The purpose of the ozone layer is to block:
 - A. Water vapor
 - B. Helicopters
 - C. Radiation

This is your traditional multiple choice version. It can also be used as a recording sheet if your students are using the version with index cards.

Watch the
movie about
the
Atmosphere

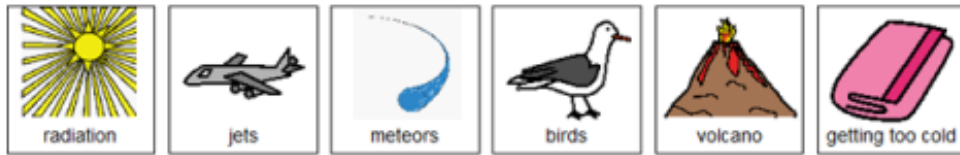
We need to keep the ozone layer healthy by limiting pollution. If there are not enough ozone molecules then the radiation will be able to leak through.



Christa Joy, Special Needs for Special Kids

This unit also has digital activities. There is a movie version of the books students can listen to read aloud.

1. The atmosphere protects the Earth from: (circle all)



2. What makes the sky look blue?



3. How many layers are in the atmosphere?



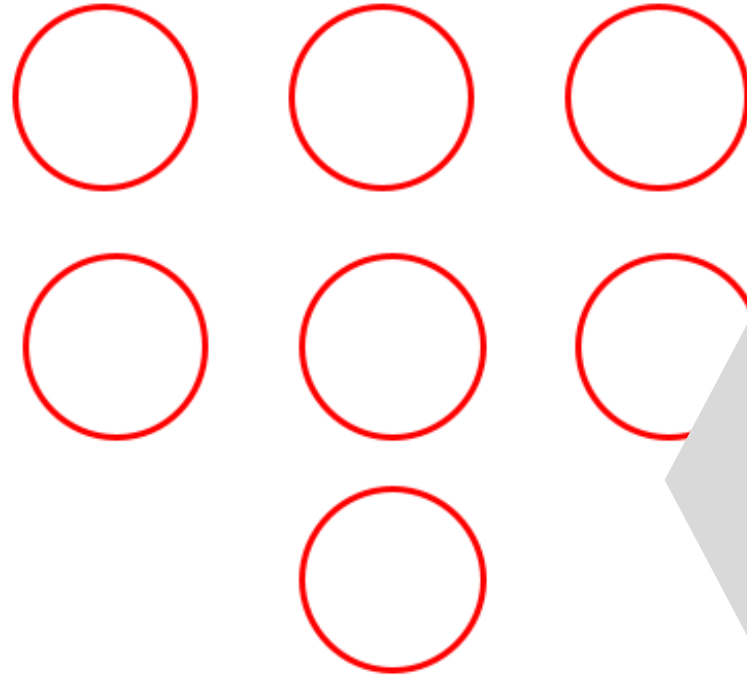
4. What is the name of the layer closest to the Earth?



5. What is the name of the layer farthest from the Earth?



Circle the correct answer.



The digital activities have students click and drag their answers.

Label each layer of the atmosphere.

The diagram shows a cross-section of Earth's atmosphere with five layers. From the surface outwards, the layers are: the troposphere (blue), the stratosphere (yellow), the mesosphere (green), the thermosphere (orange), and the exosphere (grey). Each layer is connected to a label box by an arrow. To the right of the diagram are six icons in colored boxes: a blue box with a cloud, rain, and an airplane labeled 'troposphere'; a green box with sunglasses labeled 'stratosphere'; a red box with a flame and a thermometer with an upward arrow labeled 'thermosphere'; a grey box with a planet and stars labeled 'exosphere'; a yellow box with a thermometer and a downward arrow labeled 'mesosphere'; and a white box with a cloud, rain, and an airplane labeled 'troposphere'.

Christa Joy, Special Needs for Special Kids
The Picture Communication Symbols ©1981-2019 by Tobii Dynavox. All Rights Reserved
Worldwide. Used with permission. Boardmaker® is a trademark of Tobii Dynavox

There are 2 sets of slides. One set has color-coding for more support.

This resource comes in a zipped folder. You will need to unzip the folder to access all the contents which include:

- *11 days of lesson plans*
- *Atmosphere activities in color*
- *Atmosphere activities in black and white*
- *Voice-recorded PowerPoint shows*
- *Atmosphere book (PowerPoint) to use with activities*
- *Links and directions to digital activities*