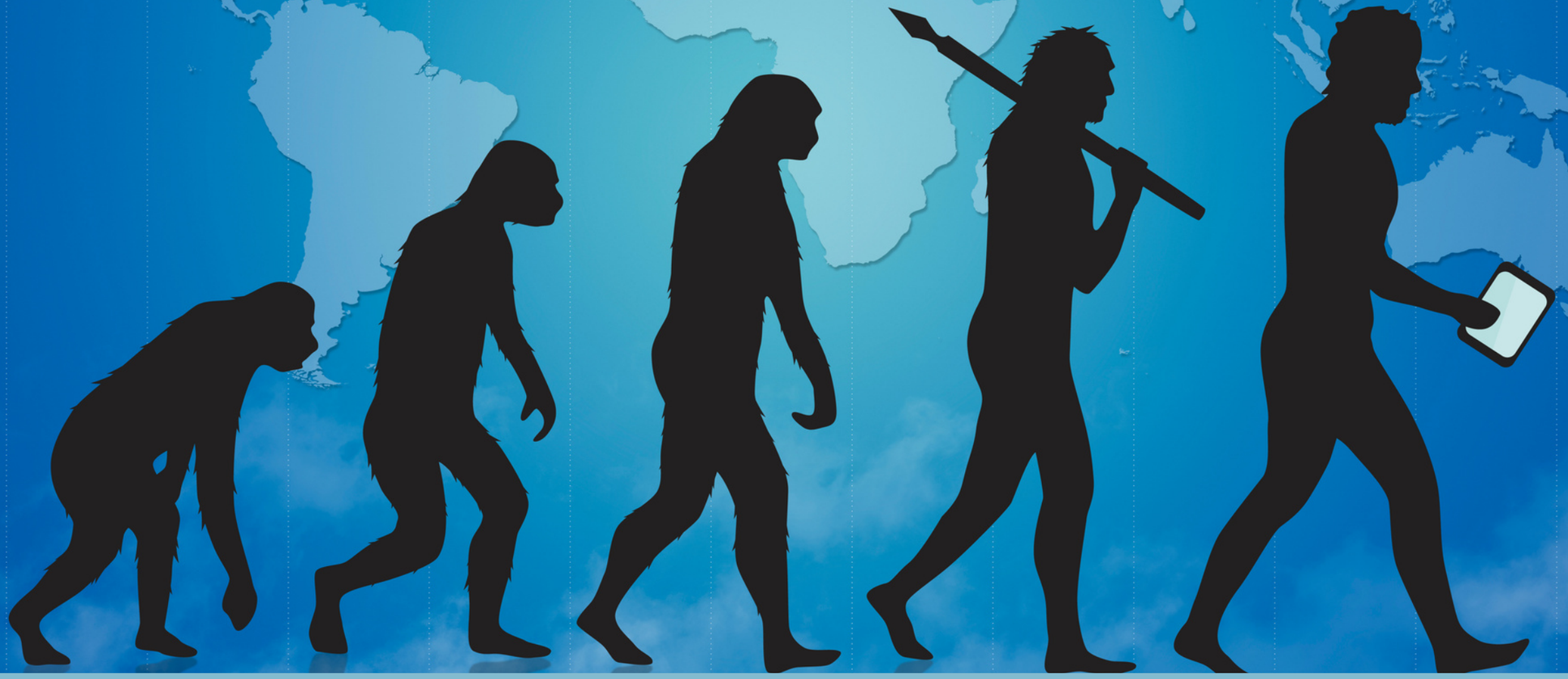
Special Ed

EVOLUTION
BONUS: CLADOGRAMS



ALSO INCLUDES GOOGLE SLIDES

Special Needs for Special Kids

This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader, has a very short attention span, and struggles to sit still. With some support he is able to do this unit, and enjoys the challenge. He is my tester!!

Color version

Evolution Unit

By

Christa Joy

Special Needs for Special Kids

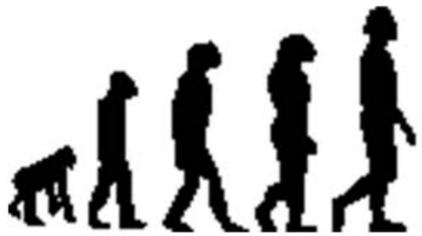


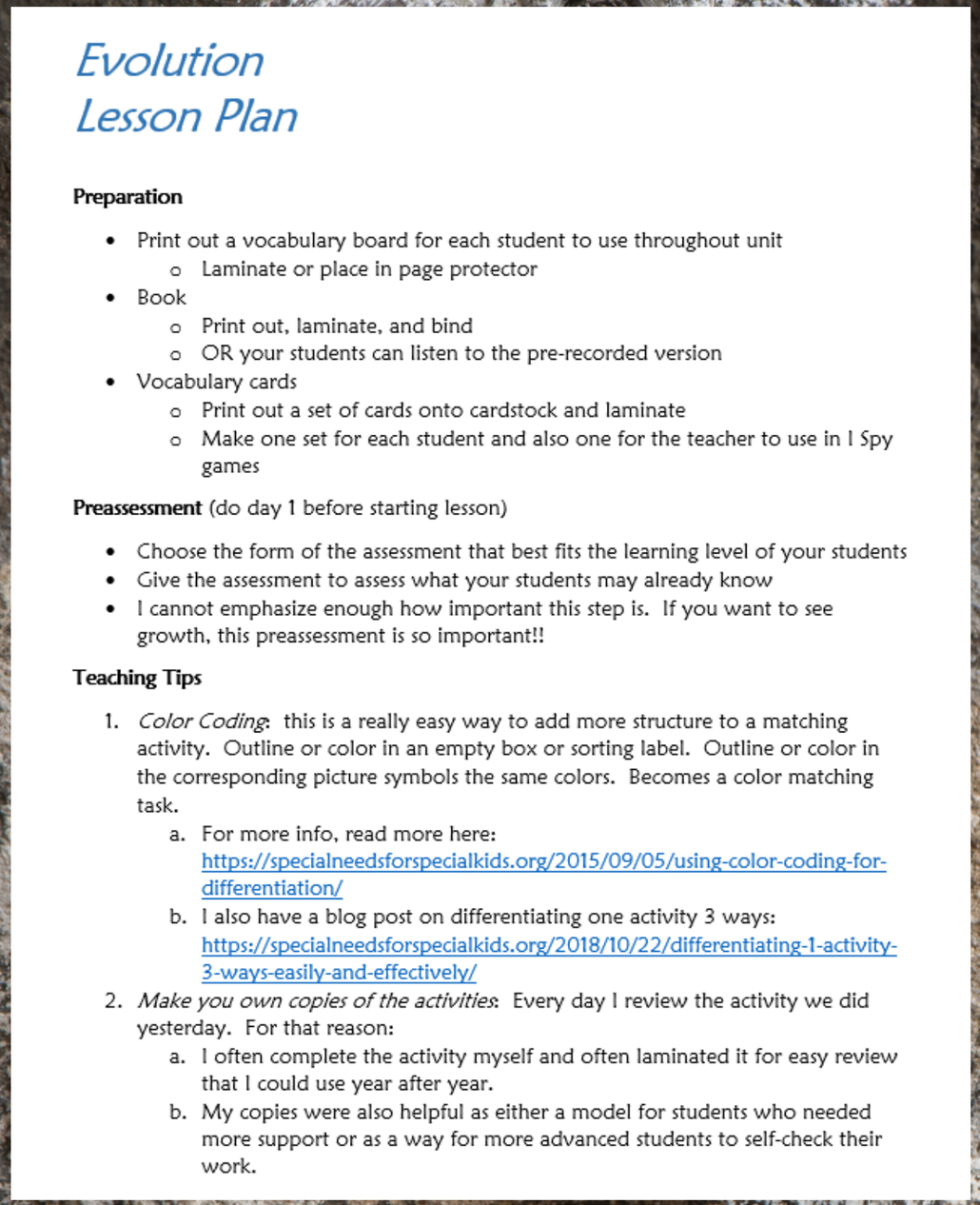
Table of Contents

Also included in this resource as separate files:

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

This unit contains almost 200 pages of material plus over 70 google slides. 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.

It comes in 2 separate files. One in color and one in black and white.



Evolution
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:

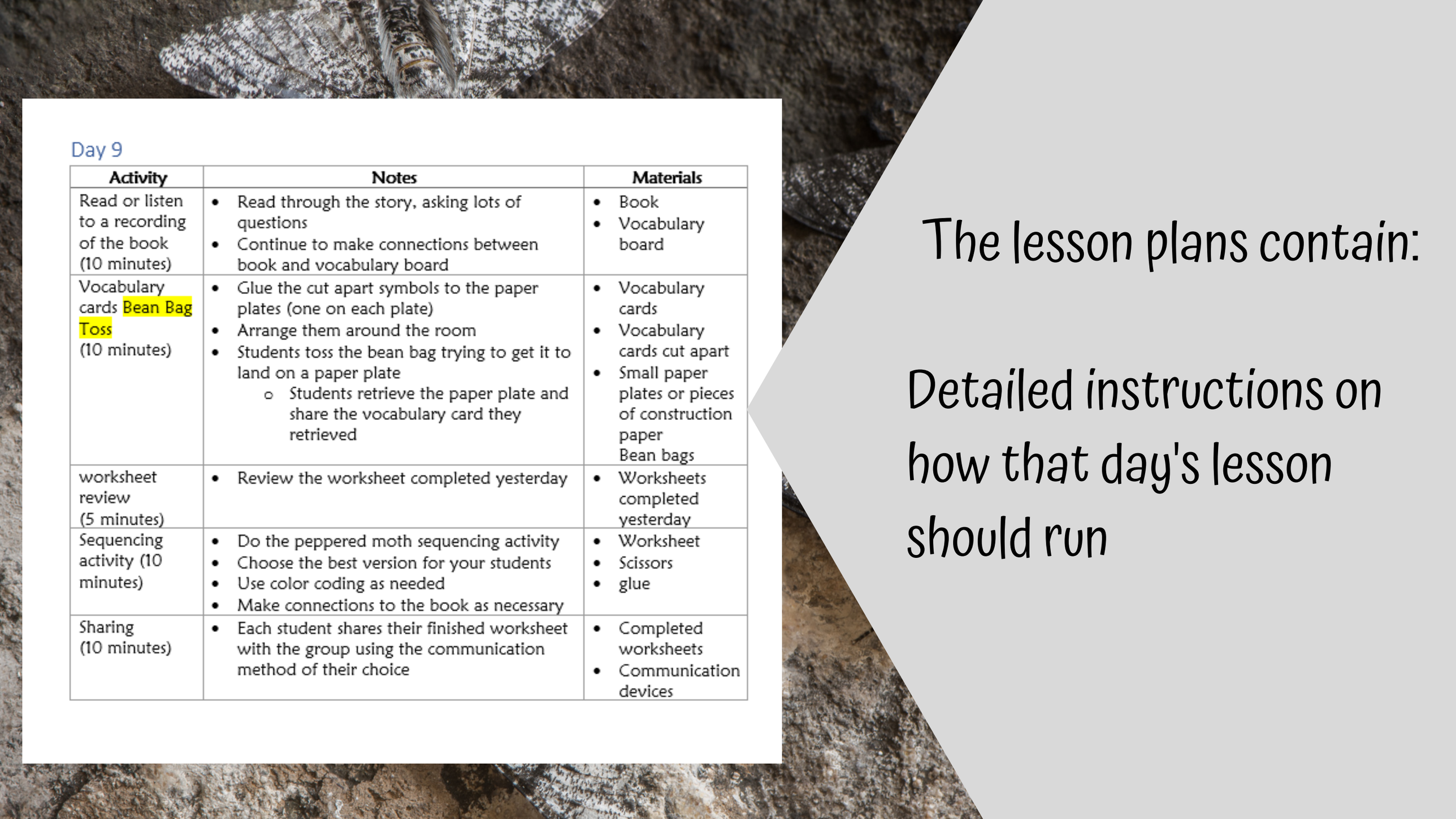
Overall tips for teaching students with significant needs

Quick Look

Day	Activity	Day	Activity	Day	Activity
1	• Book • Vocab cards activity • Circle map	7	• Book • Vocab cards activity • Id the adaptation	10	• Book • Vocab cards activity • Writing Prompt
2	• Book • Vocab cards activity • Circle map	8	• Book • Vocab cards activity • Id the adaptation	11	• Book • Vocab cut and paste • Close worksheet
3	• Book • Vocab cards activity • Sorting activity	9	• Book • Vocab cards activity • Sequencing activity	12	• Book • Vocab cut and paste • Close worksheet
4	• Book • Vocab cards activity • Sorting activity		• Cladogram Book • Small group activity • Id common ancestors	13	• Assessment • Vocabulary Sudoku
5	• Book • Vocab cards activity • Sorting activity		• Cladogram Book • Small group activity • Id common traits		
6	• Book • Vocab cards activity • Id the adaptation		• Cladogram Book • Small group activity • Close worksheet		

The lesson plans contain:

A quick look at what you will do each day



Day 9

Activity	Notes	Materials
Read or listen to a recording of the book (10 minutes)	• Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board	• Book • Vocabulary board
Vocabulary cards Bean Bag Toss (10 minutes)	• 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	• Vocabulary cards • Vocabulary cards cut apart • Small paper plates or pieces of construction paper Bean bags
worksheet review (5 minutes)	• Review the worksheet completed yesterday	• Worksheets completed yesterday
Sequencing activity (10 minutes)	• Do the peppered moth sequencing activity • Choose the best version for your students • Use color coding as needed • Make connections to the book as necessary	• Worksheet • Scissors • glue
Sharing (10 minutes)	• Each student shares their finished worksheet with the group using the communication method of their choice	• Completed worksheets • Communication devices

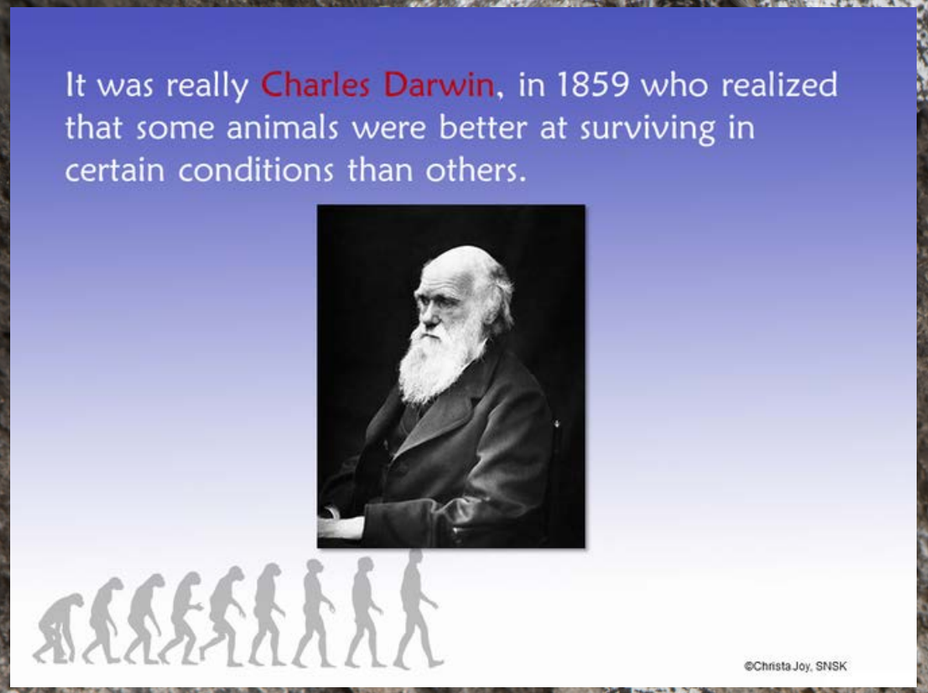
The lesson plans contain:

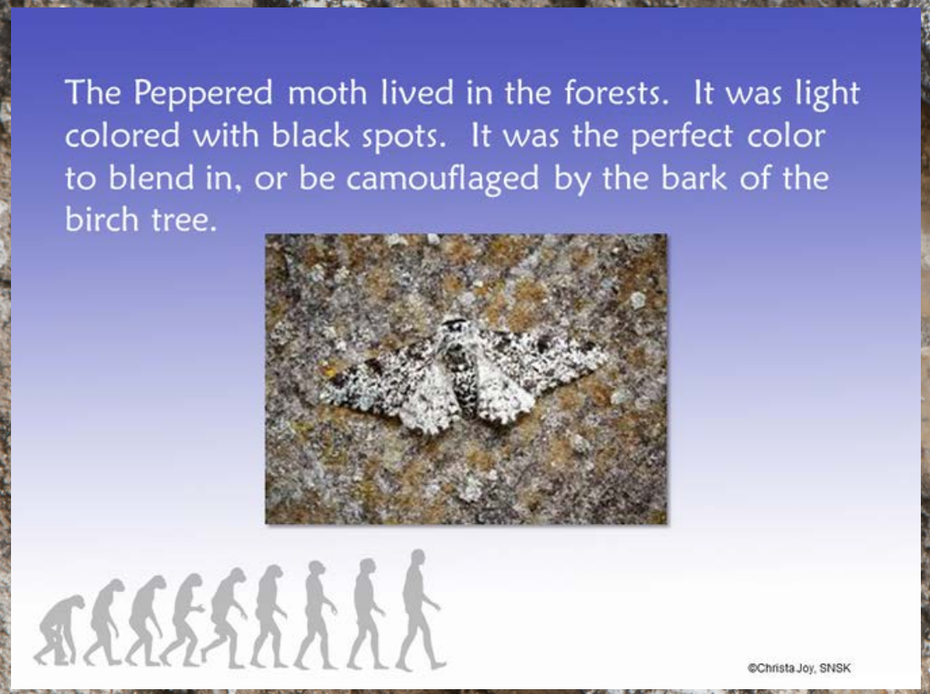
Detailed instructions on how that day's lesson should run

This unit comes with a vocabulary board.

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

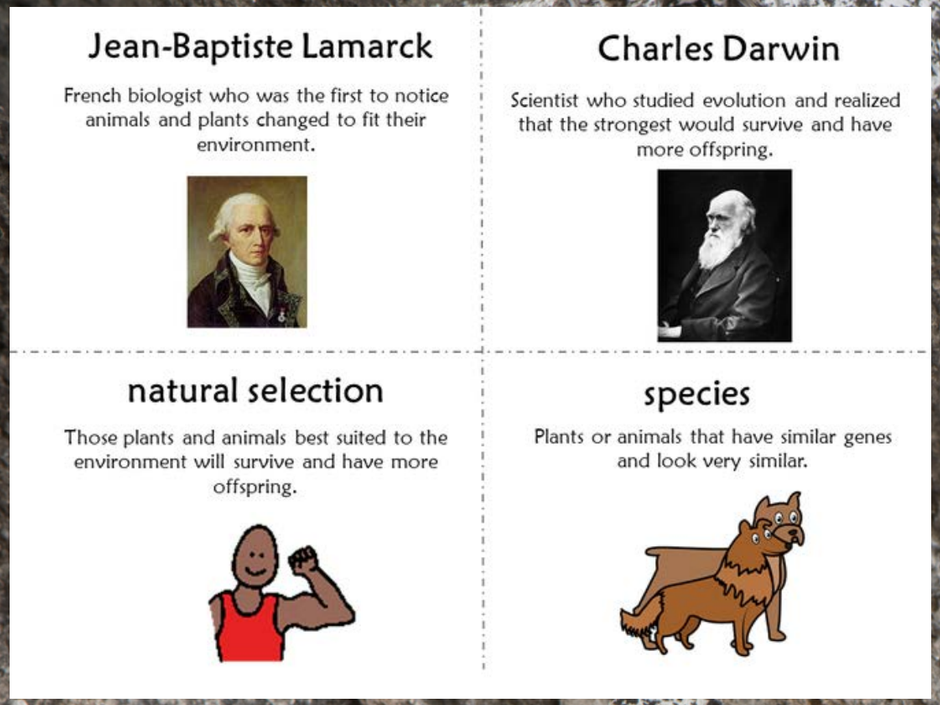
Tips on how to use in the unit!!

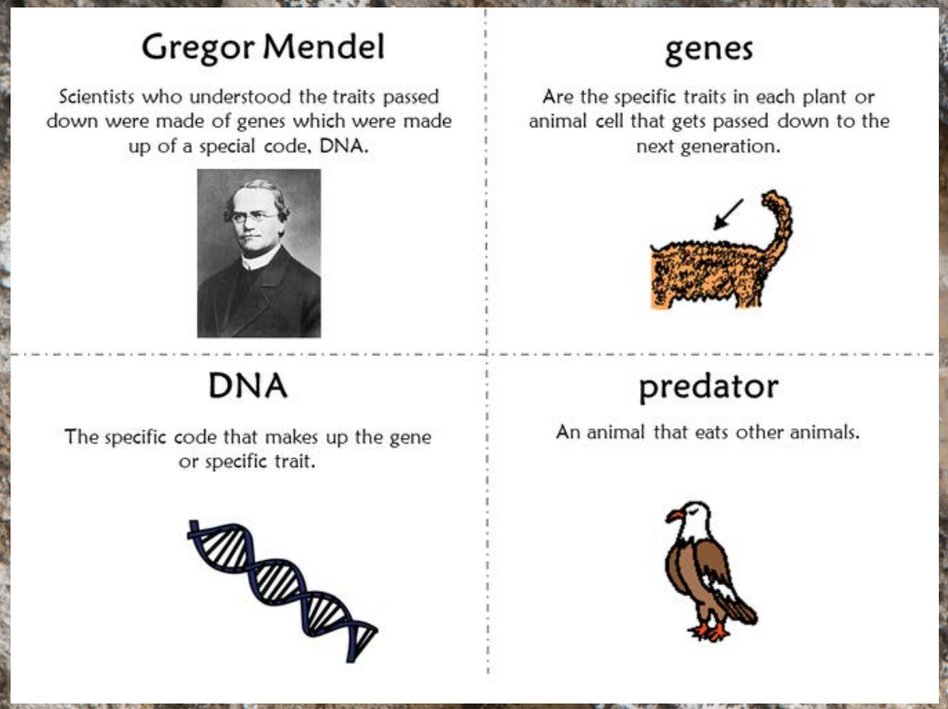




There is a 60 page book on evolution with simple text and engaging photos.

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.





There are 20 vocabulary cards that come in color and black and white.

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

evolution

Changes that occur in the DNA of plants and animals that occur over a long time so they are better able to survive.

adapt

Changes plants and animals can make fairly quickly to survive a change in the environment.

speciation

When a plant or animals changes so much over time it is basically a new plant or animal.

mutation

An unplanned or accidental change in the DNA.

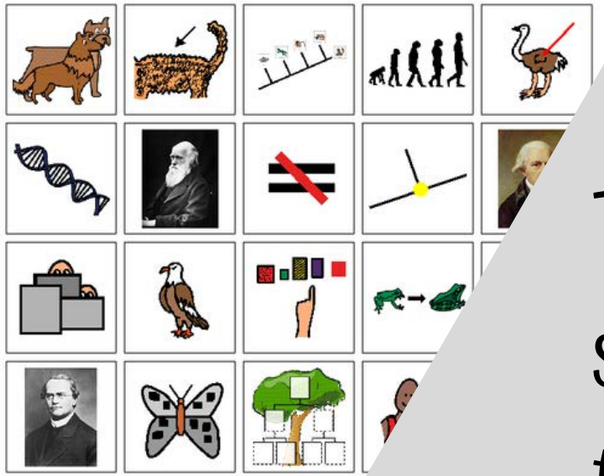
vestigial structure

camouflage

mimicry

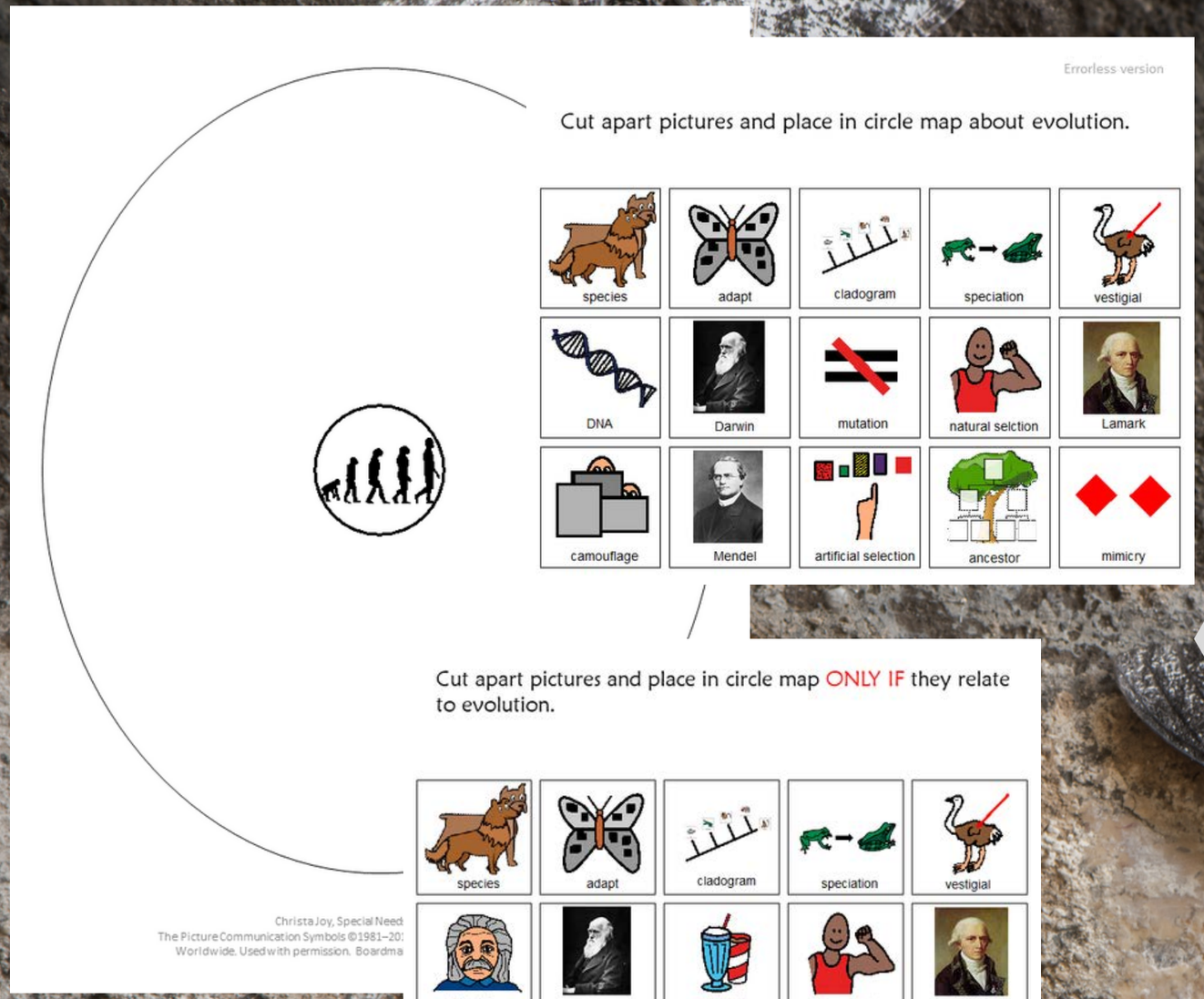
artificial selection

Cut apart and match pictures with definition.



Changes that occur in the DNA of plants and animals that occur over a long time so they are better able to survive.	T
Are the specific traits in each plant or animal cell that gets passed down to the next generation.	A plant c
When scientists select for certain traits in a lab depending on what certain people want.	A part of a plant useful, u
An unplanned or accidental change in the DNA.	Those plants and anim environment will surviv offspring.
Are the specific traits in each plant or animal cell that gets passed down to the next generation.	When an animal looks just lik plant or animal to confuse a p

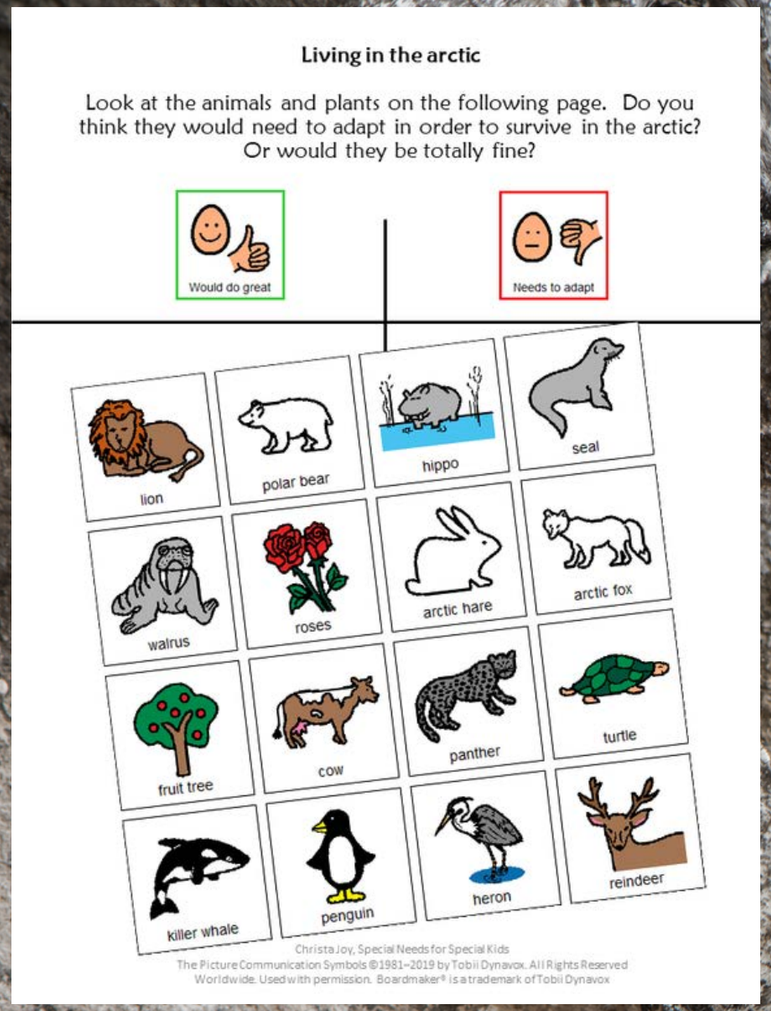
There is an activity where students will match either the picture to the definition or the definition to the picture (harder).



There are 2 circle maps, one on evolution and one on ways plants and animals adapt.

Circle maps are a great way for students to see the concept at a glance. There are 2 versions:

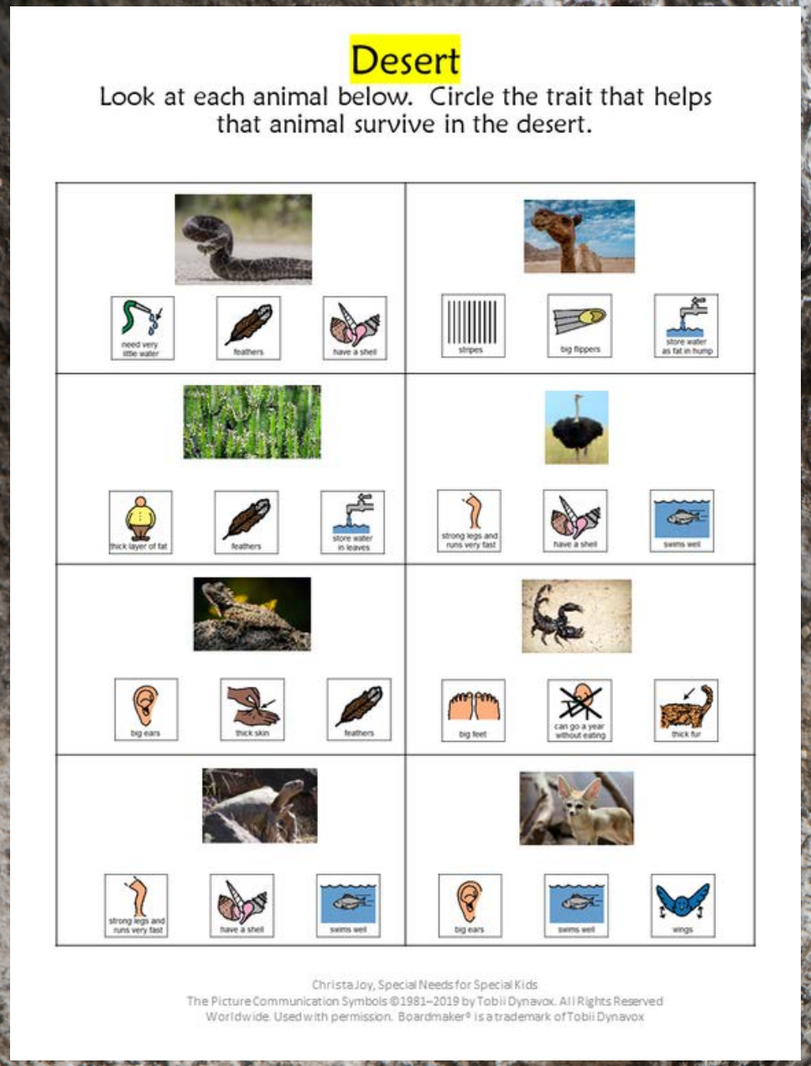
- One is errorless
- One has wrong answers mixed in students will have to set aside

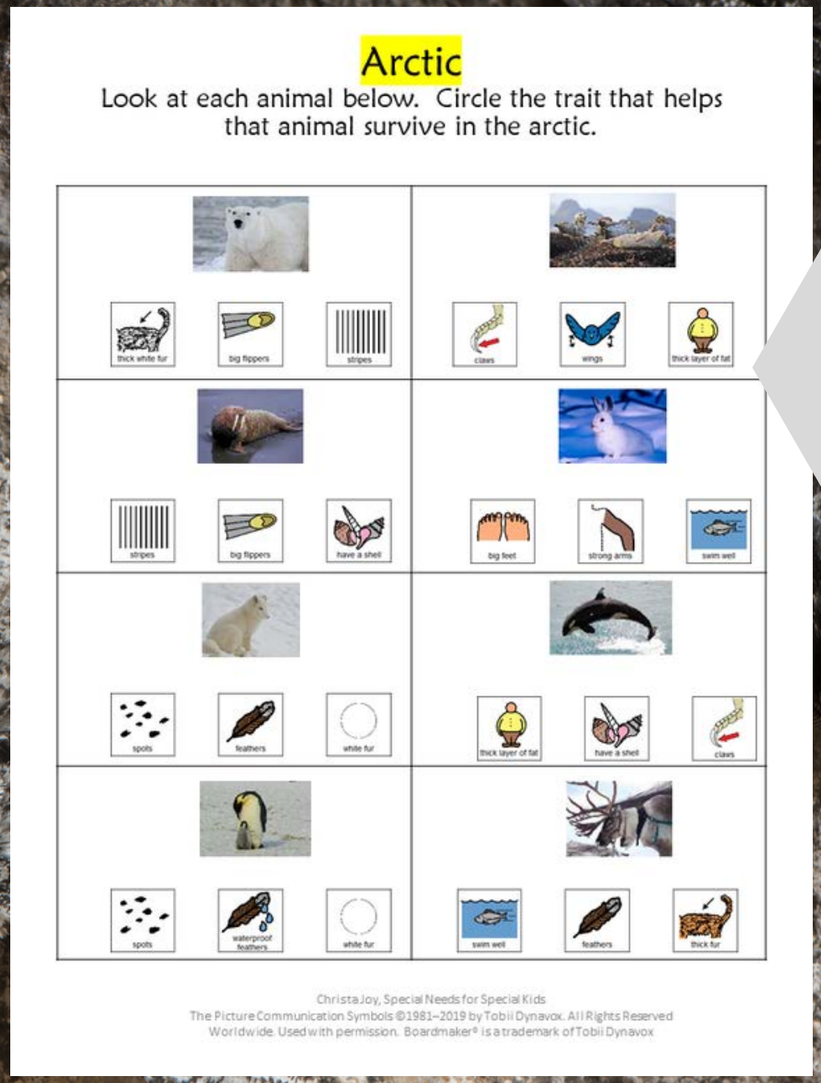


There are 3 sorting activities looking at animals and plants and deciding if they would or would not have to adapt to survive in a specific environment.

They come with pictures symbols and photos.

Suggestions for differentiation and answer key included.





There are 3 activities where students look at a plant or animal and identify how they must have adapted to live in that climate.

How the peppered moth adapted

1

2

3

4

5

6

Place the following in the correct order on the previous page.


The white peppered moths were getting eaten more because birds could see them more easily.


Most of the peppered moths were white so they could blend in with the white birch trees.


With the start of the Industrial Revolution, there was a huge increase in the number of factories.


There was a lot more soot in the air that covered the buildings and trees.


The darker peppered moths were better camouflaged and were more likely to survive.


Prior to the Industrial Revolution, there were very few factories.

How the peppered moth adapted

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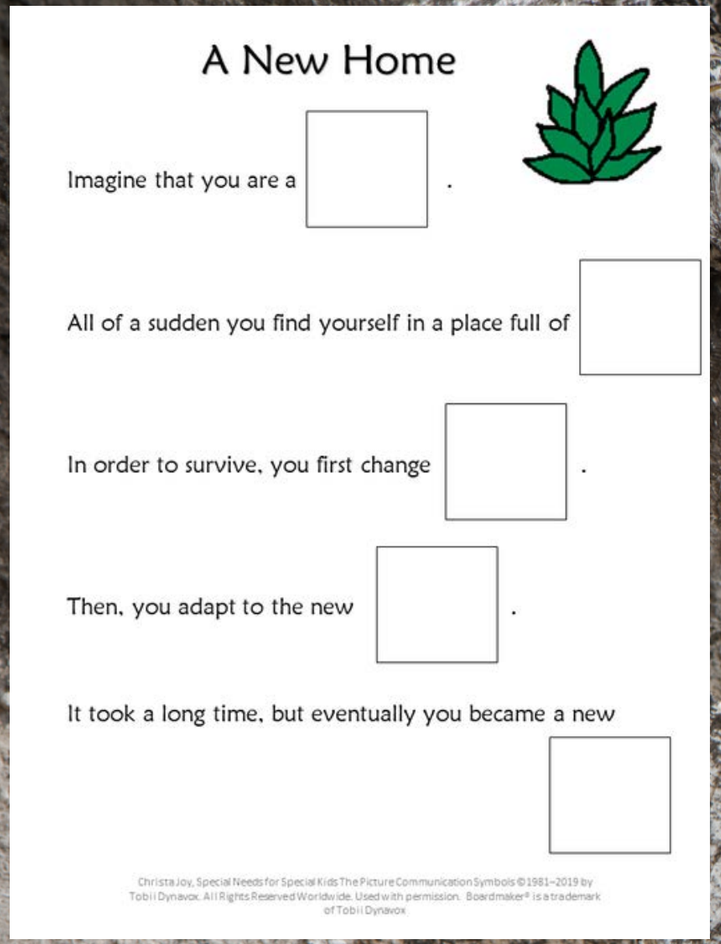
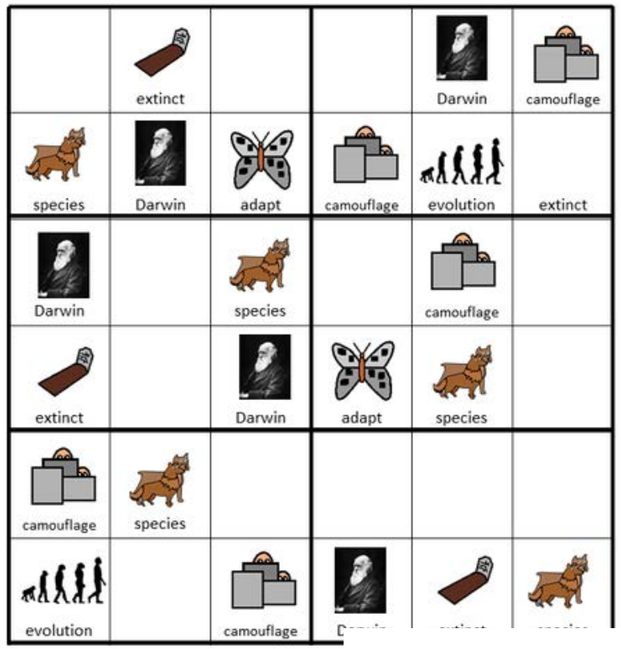
better camouflaged and were m
likely to survive.

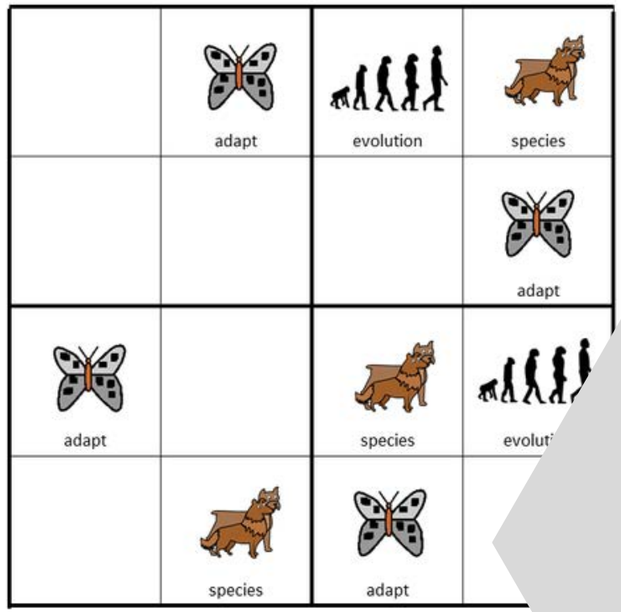
Place the following in the correct order on the previ
page.

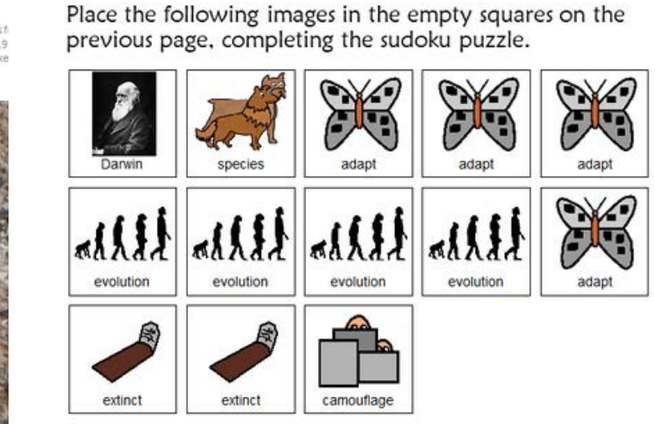
There is a sequencing activity looking at how the peppered moth had adapted to industrialization. It comes with just words and a version with picture symbols.



There are 3 writing prompts where students can tell a story as though they were a plant, animal, or person adapting to a new environment. This is an errorless activity.

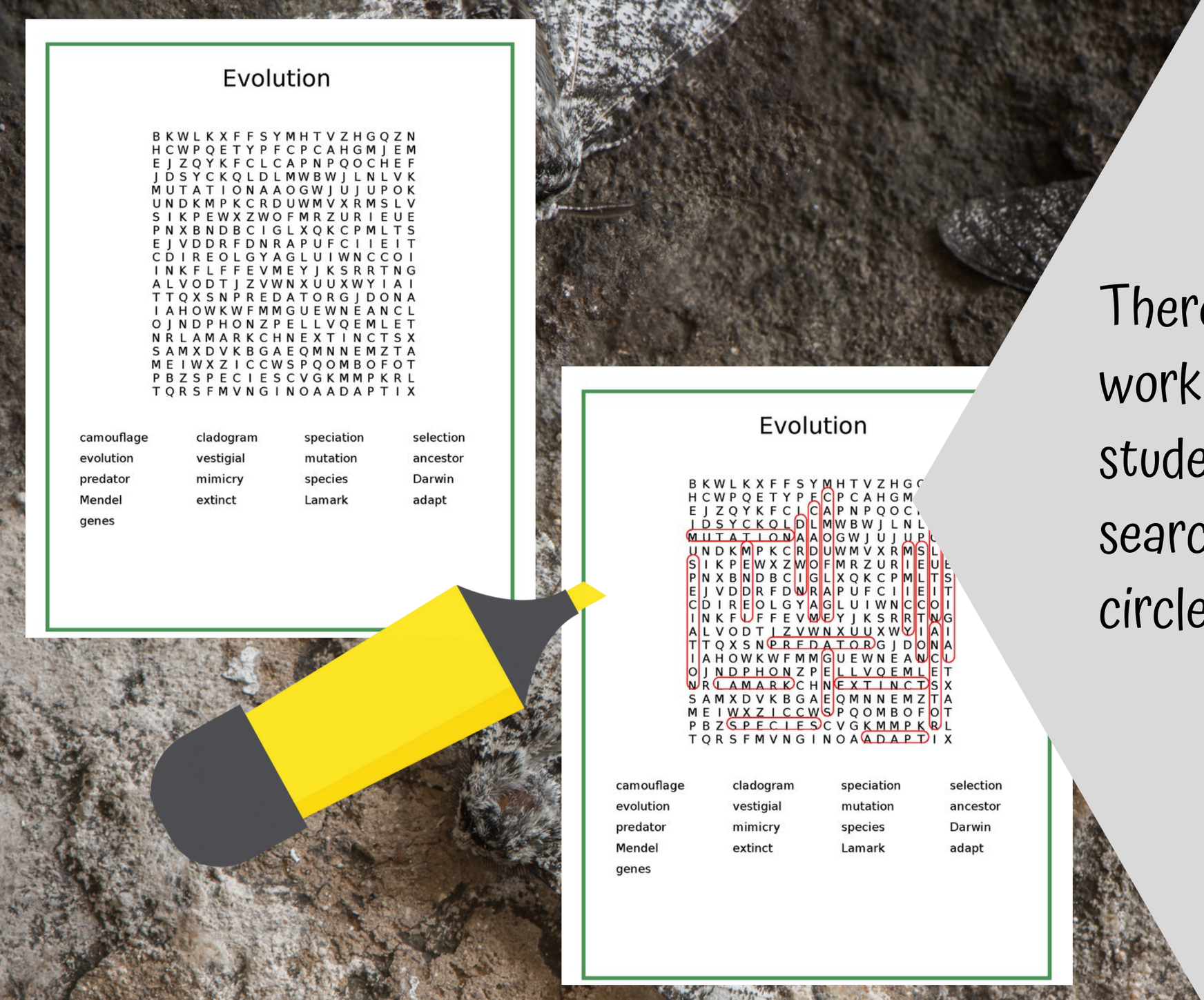






There is a Sudoku puzzle in this unit as well. This is a great way to work with the new vocabulary!!

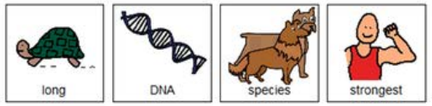
There are 2 versions plus answer keys.



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.

Evolution

1. Charles Darwin was the first to realize the [ ] survive.
2. Animals and plants adapt to changes in the [ ].
3. Traits are passed down from parent to offspring through [ ]
4. A [ ] is a group of plants/animals with things in common.
5. Evolution takes a [ ] time.



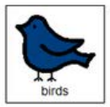
Evolution

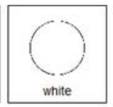
6. Speciation results in a brand new [ ].
7. Camouflage helps hide animals from [ ].
8. Mimicry most often occurs among [ ].
9. An accidental change in DNA is called a [ ].

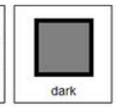
structure is one that is [ ] needed anymore.

The Peppered Moth

1. At first, most peppered moths were [ ].
2. But, then a lot of [ ] were built during the Industrial Revolution.
3. Factories released a lot of [ ] into the air.
4. [ ] are the main predators of peppered moths.
5. The soot helped hide the moths that were [ ].



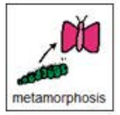


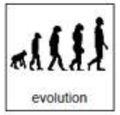


There are 3 fill-in-the-blank worksheets. These allow you to review and focus on smaller amounts of material and identify areas to review before the assessment.

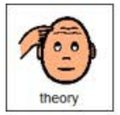
Version 1

1. The process of animals and plants changing to survive over a LONG time, is called:

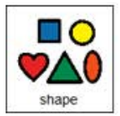


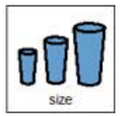


2. Evolution is a:



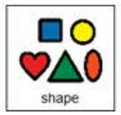
3. The peppered moth survived through a change in:

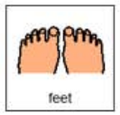


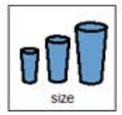


4. Most changes in traits and DNA that occur, happen through:

5. Circle all the examples of adaptations:







There is a 10 question assessment.

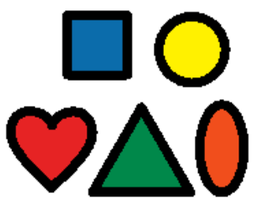
There are 3 versions. This version has 10 questions with 3 picture choices for each question.

Answer key included.

Version 2

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

Q 3



shape

color

size

Q 4

science

art

mutation

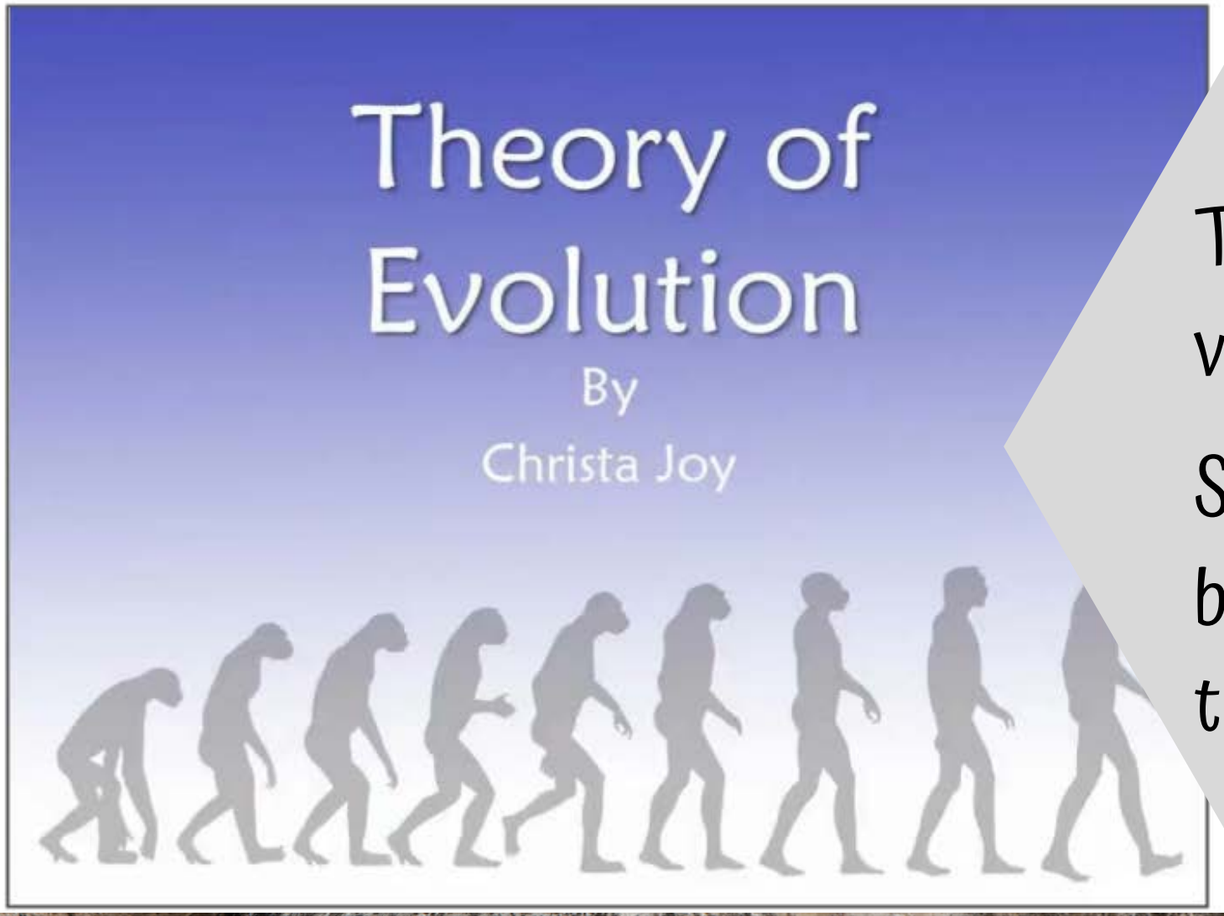
With this version, you cut out the answer choices and glue them on index cards. Ask the student the question, and they point to the correct answer.

Version 3

1. The process of animals and plants changing to survive over a LONG time, is called:
   A. metamorphosis
   B. evolution
   C. mutation
2. Evolution is a:
   A. theory
   B. fact
   C. myth
3. Due to changes in the environment, the peppered moth ended up changing:
   A. shape
   B. color
   C. size
4. Most changes in traits and DNA that occur, happen through:
   A. science
   B. art
   C. mutation
5. Circle all the examples of adaptations:
   A. Color
   B. fur
   C. shape
   D. feet
   E. size
   F. skin
6. Natural selection is a process where only the _____ survive.
   A. strongest
   B. wealthy
   C. weakest

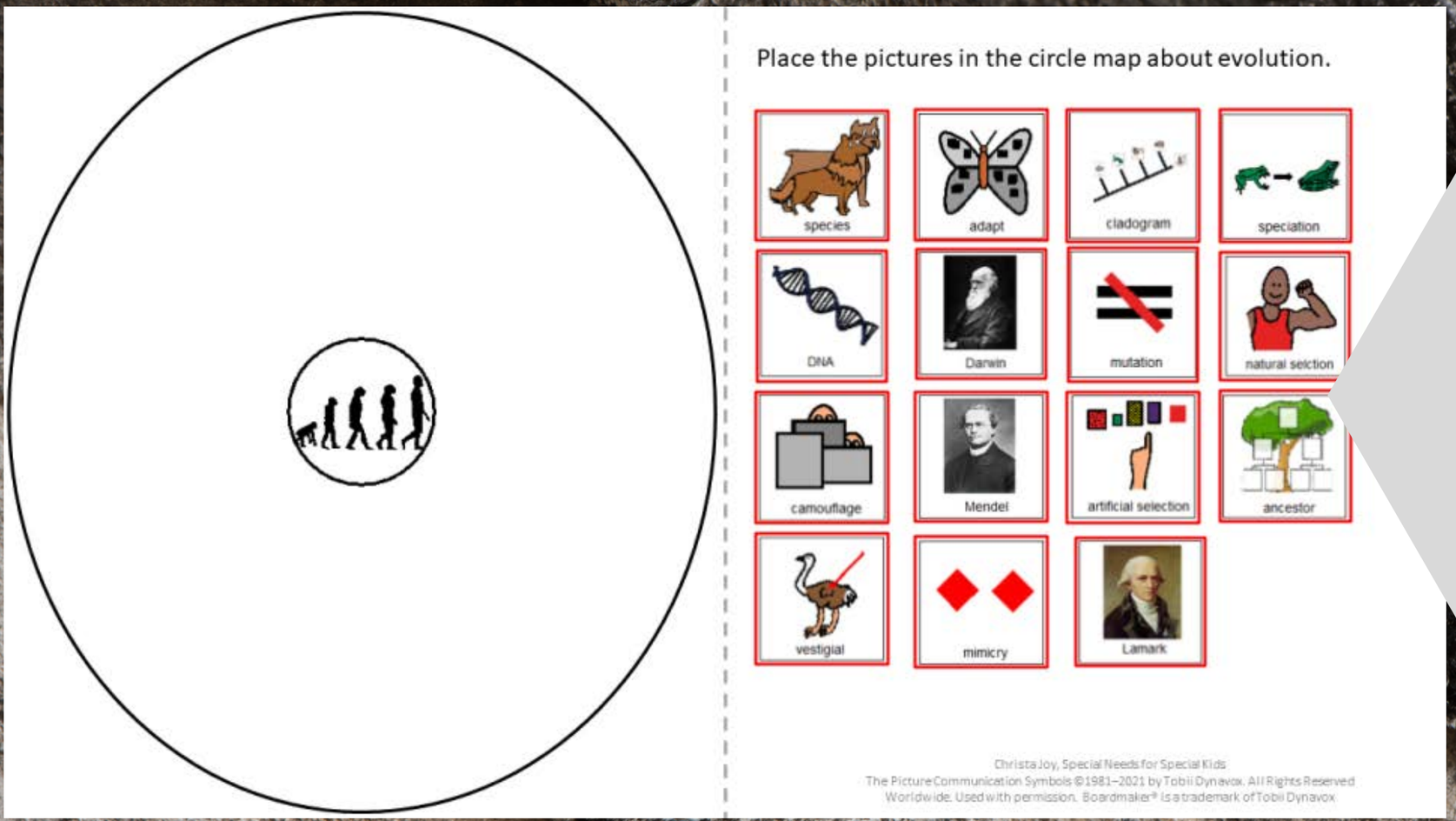
This is your traditional multiple choice version. It can also be used as a recording sheet if your students are using the version with index cards.

Watch the video on Evolution.



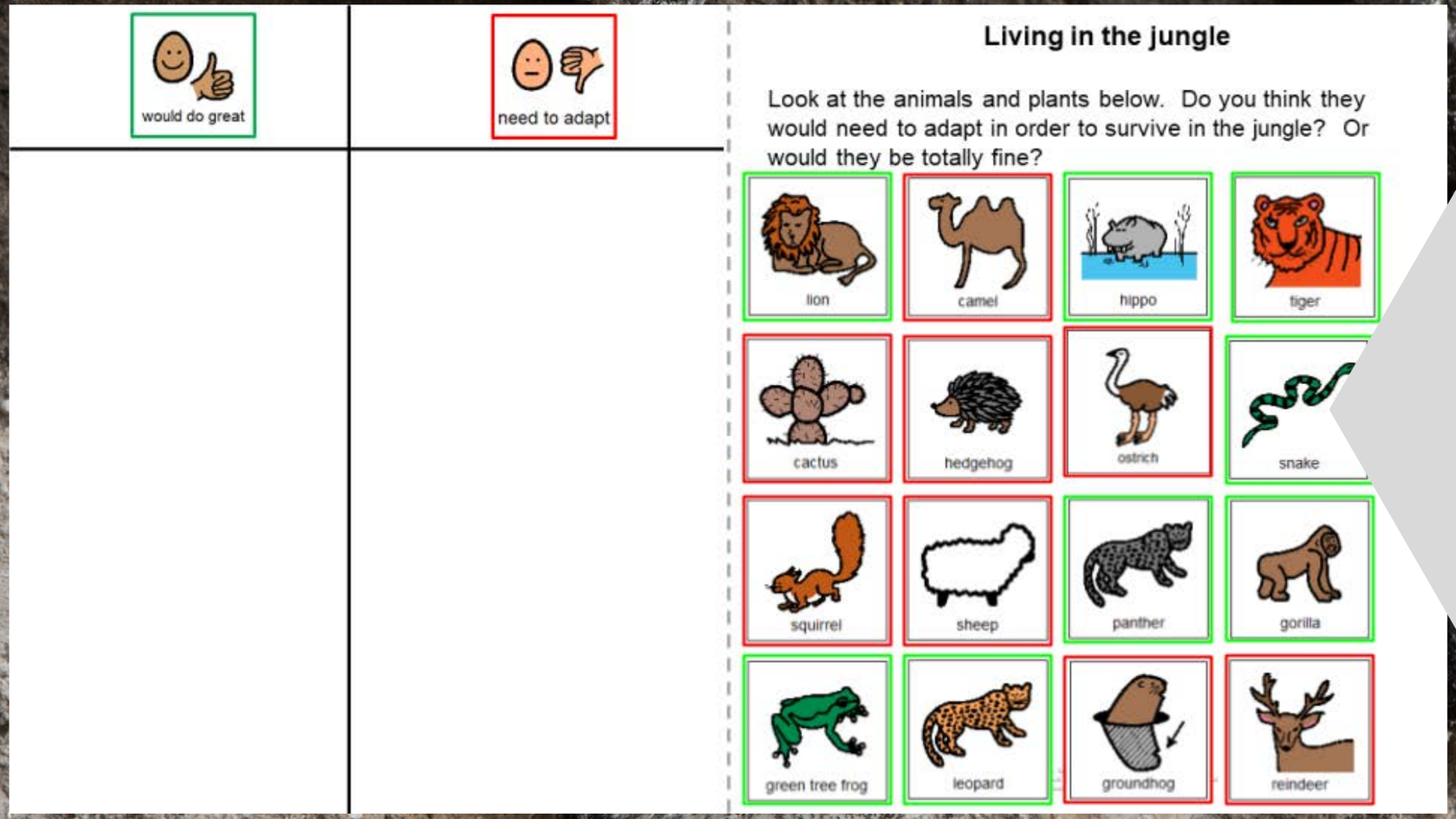
This unit also includes digital versions of the activities.

Students can watch a movie book version of the book rather than printing it out.



Place the pictures in the circle map about evolution.

Each activity is set up so students can click and drag answers. No typing is required.

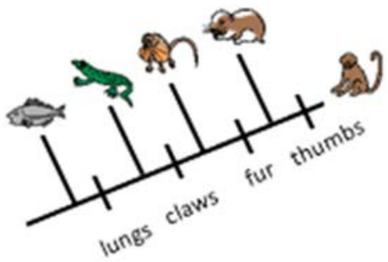


The second set of slides uses color for differentiation and extra support for students who may need it. Mix and match slides from both sets to make the perfect set for each student.

Color version

Cladogram Mini-Unit

By
Christa Joy
Special Needs for Special Kids



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Also included in this resource as separate files:

- Lesson plans
- Links and directions to digital activities
- PowerPoint **(this is the book in the lesson plans)**
- Voice recorded PowerPoint
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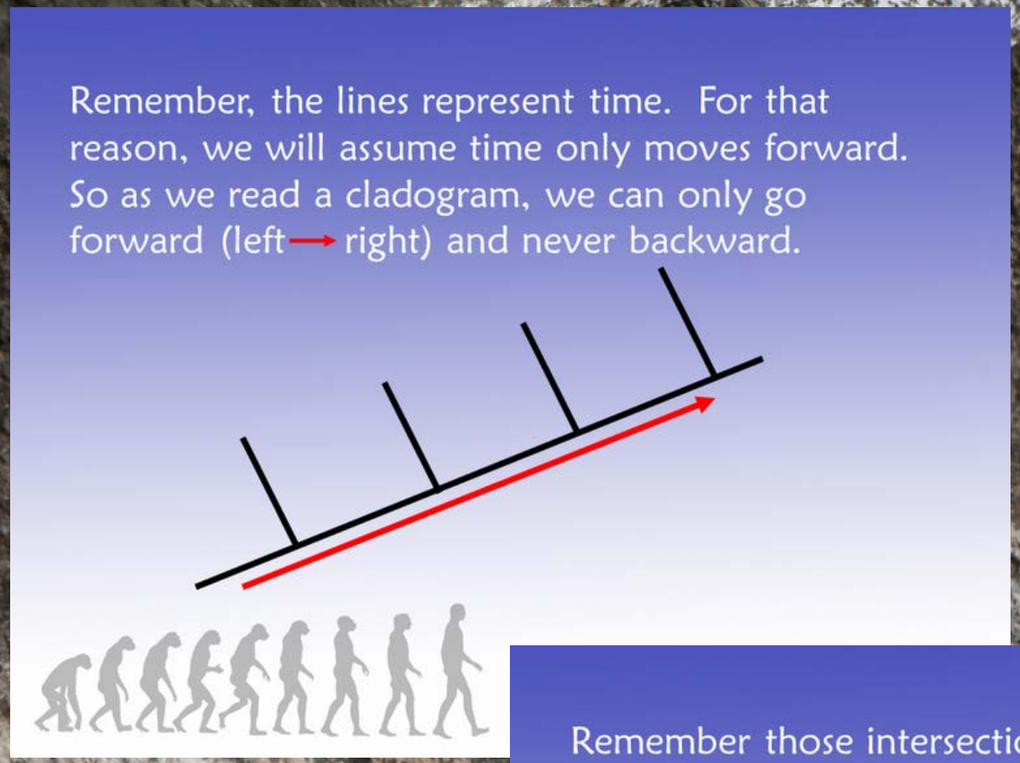
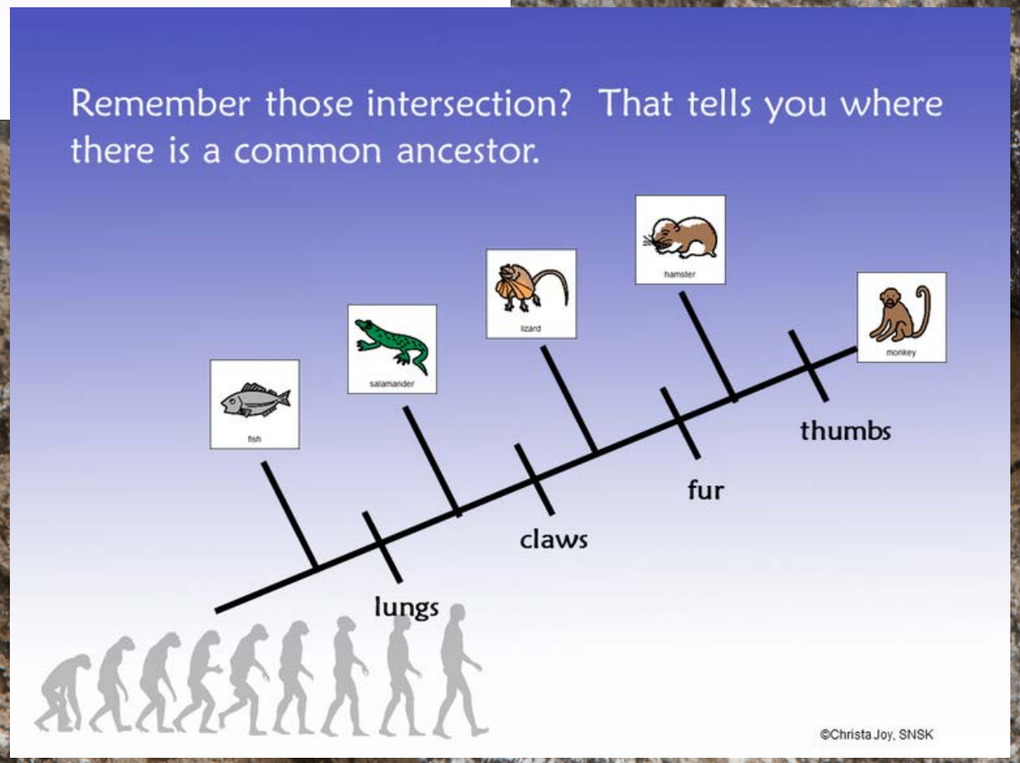
There is a free bonus unit included that focuses on how to read cladograms.

It also comes in two separate files, one in color and one in black and white.





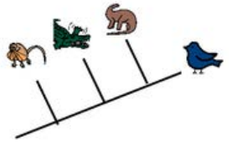
There is a 40 page book that comes in a PowerPoint and movie (mp4) file.

This book goes through how to read a cladogram using hypothetical examples with picture symbols.

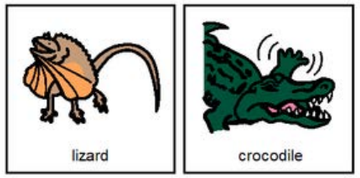
Cladograms: Group activity

- This activity is meant to be done with a group.
- Students will practice reading/interpreting cladograms.
- Directions:
  - Look at the sample diagram and draw just the lines on a dry erase board.
  - Print the symbols onto cardstock.
  - Optional: laminate for durability
  - Print a choice board for each student (I like to laminate these or put in a page protector so students can circle their answers with a dry erase marker)
- Questions to ask:
  - Circle all the animals that have a certain trait
  - Circle the closest ancestor to _____
  - Circle all the animals that have a common ancestor (color in a node on the cladogram)
  - Yes/no questions

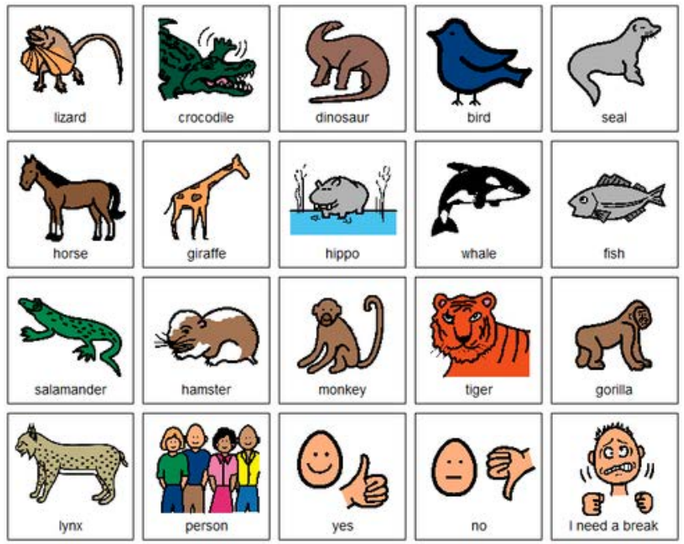
Example 1



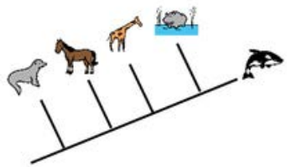
- Draw the lines on board
- Make copies of cards below
- Give each student a copy of answer board
- Create cladogram
- Ask questions (see general instructions for samples)



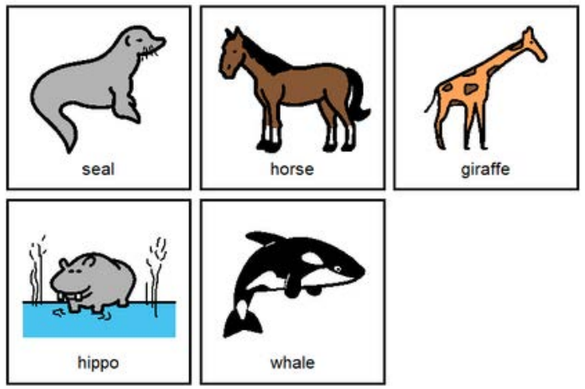
Make a copy for each student to use when answering questions about the cladograms.



Example 2

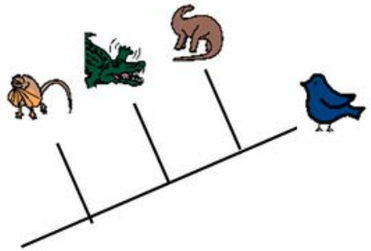


- Draw the lines on board
- Make copies of cards below
- Give each student a copy of answer board
- Create cladogram
- Ask questions (see general instructions for samples)



There is a group activity with cards and directions on how to practice reading a cladogram.

#1



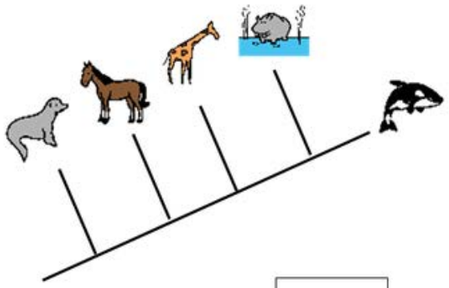
The closest ancestor to the crocodile is:

The closest ancestor to the dinosaur is:

These have common ancestors to the crocodile.

The closest ancestor to the lizard is:

#2



The closest ancestor to the horse is:

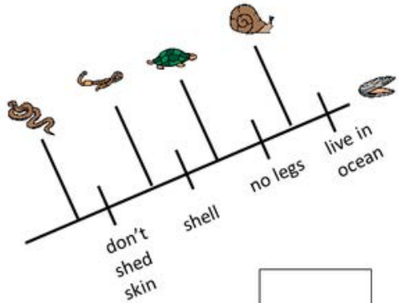
The closest ancestor to the hippo is:

These have common ancestors to the giraffe.

The closest ancestor to the seal is:

There are 5 examples where students will identify common ancestors on a cladogram. There are suggestions for differentiation and answer key included.

#3



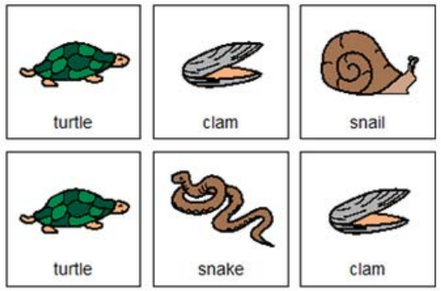
The closest ancestor to the worm is:

These have shells:

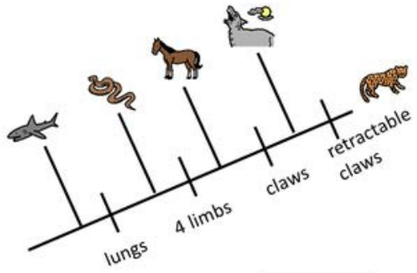
This animal sheds its skin.

This animal live in the ocean:

Use for cladogram #3



#5



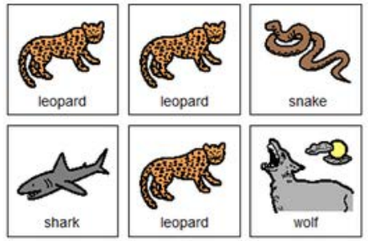
The closest ancestor to the wolf is:

These animals have claws:

These animals do NOT have 4 limbs.

This animal has retractable claws:

Use for cladogram #5



There are 5 examples where students will identify common traits on a cladogram. There are suggestions for differentiation and answer key included.

Cladogram

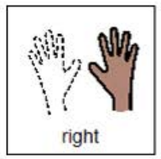
1. The lines on a cladogram represent _____.

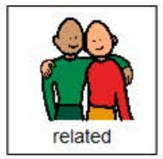
2. The intersections or nodes represent a common _____.

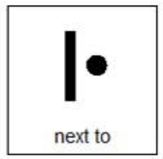
3. You read the cladogram from _____ to _____.

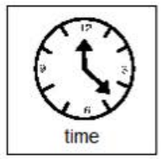
4. Cladograms how plants and animals are _____.

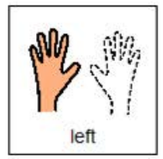
5. The most closely related plants or animals are _____ each other on the cladogram.

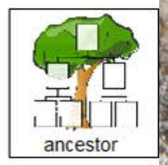






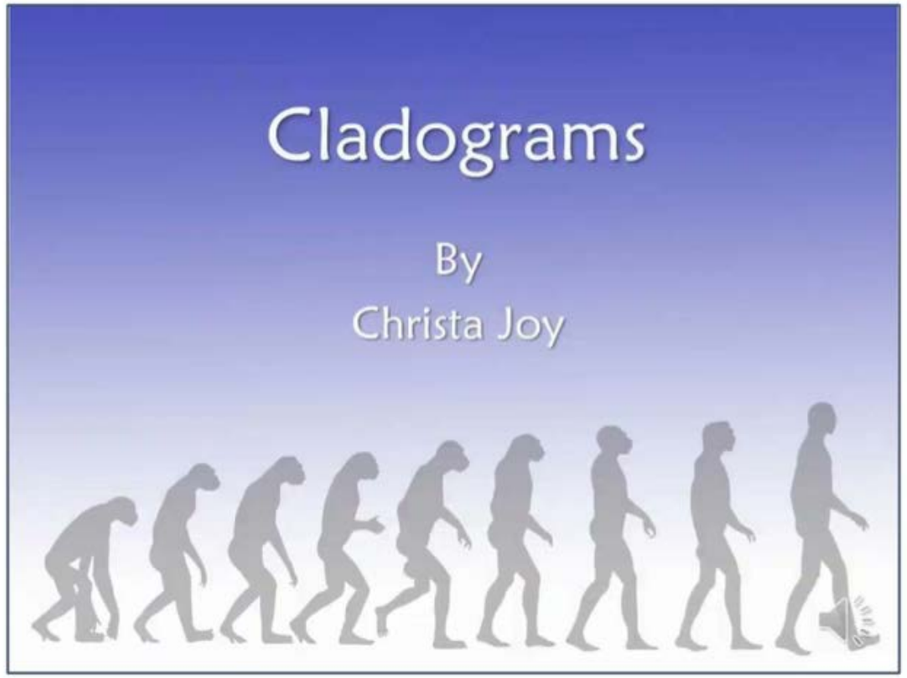


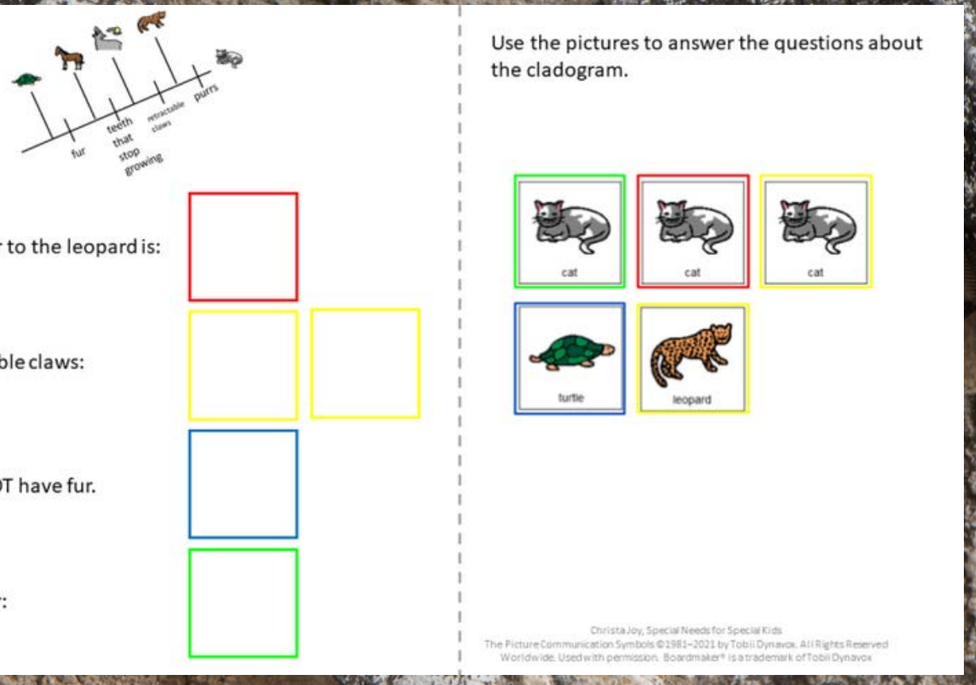




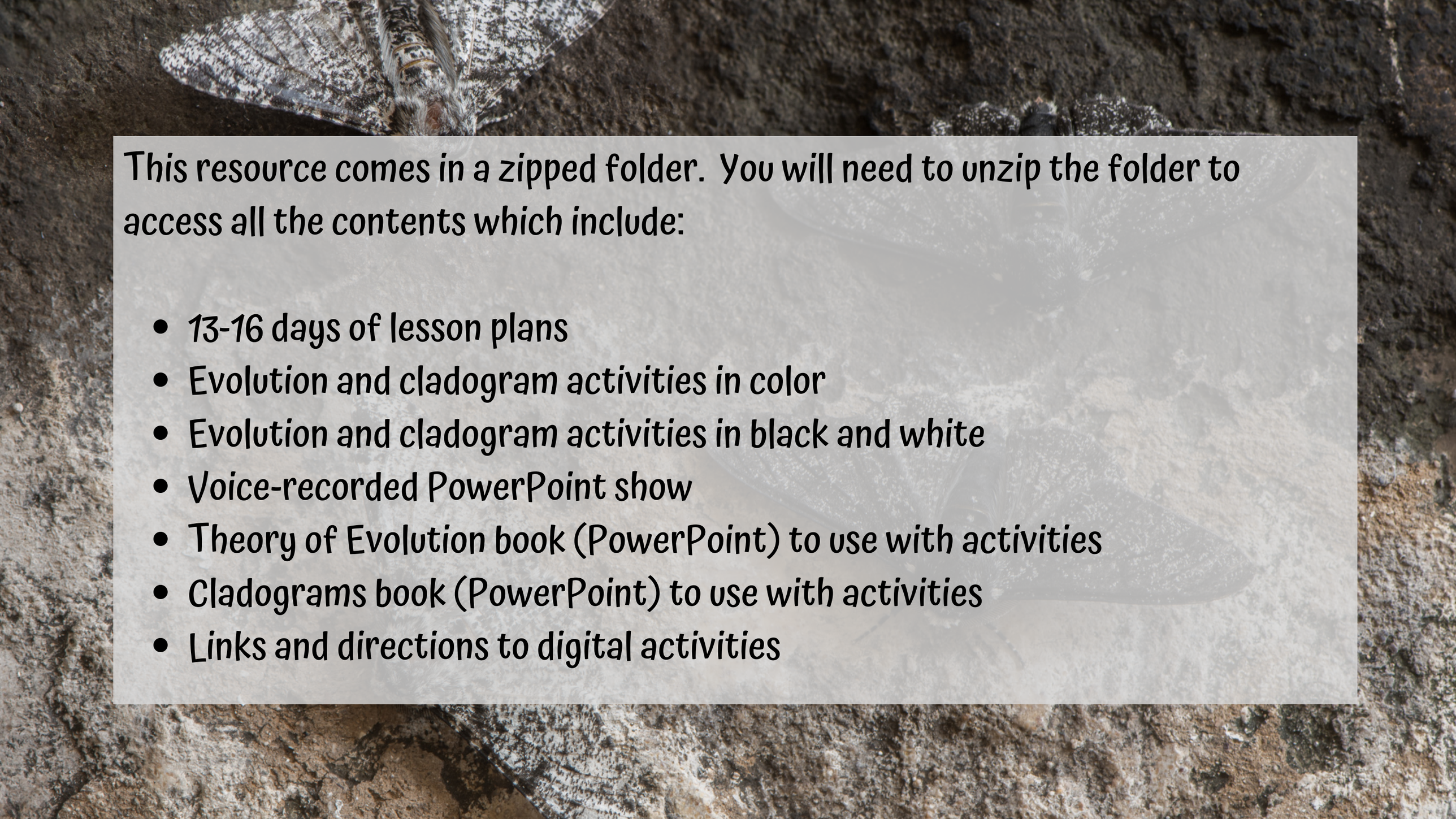
There is not a full assessment with this mini-unit, but there is a fill-in-the-blank worksheet to informally assess comprehension.

Watch the video on Cladograms.





Finally, there are digital versions of the activities in this mini-unit on cladograms as well.



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

- 13-16 days of lesson plans
- Evolution and cladogram activities in color
- Evolution and cladogram activities in black and white
- Voice-recorded PowerPoint show
- Theory of Evolution book (PowerPoint) to use with activities
- Cladograms book (PowerPoint) to use with activities
- Links and directions to digital activities