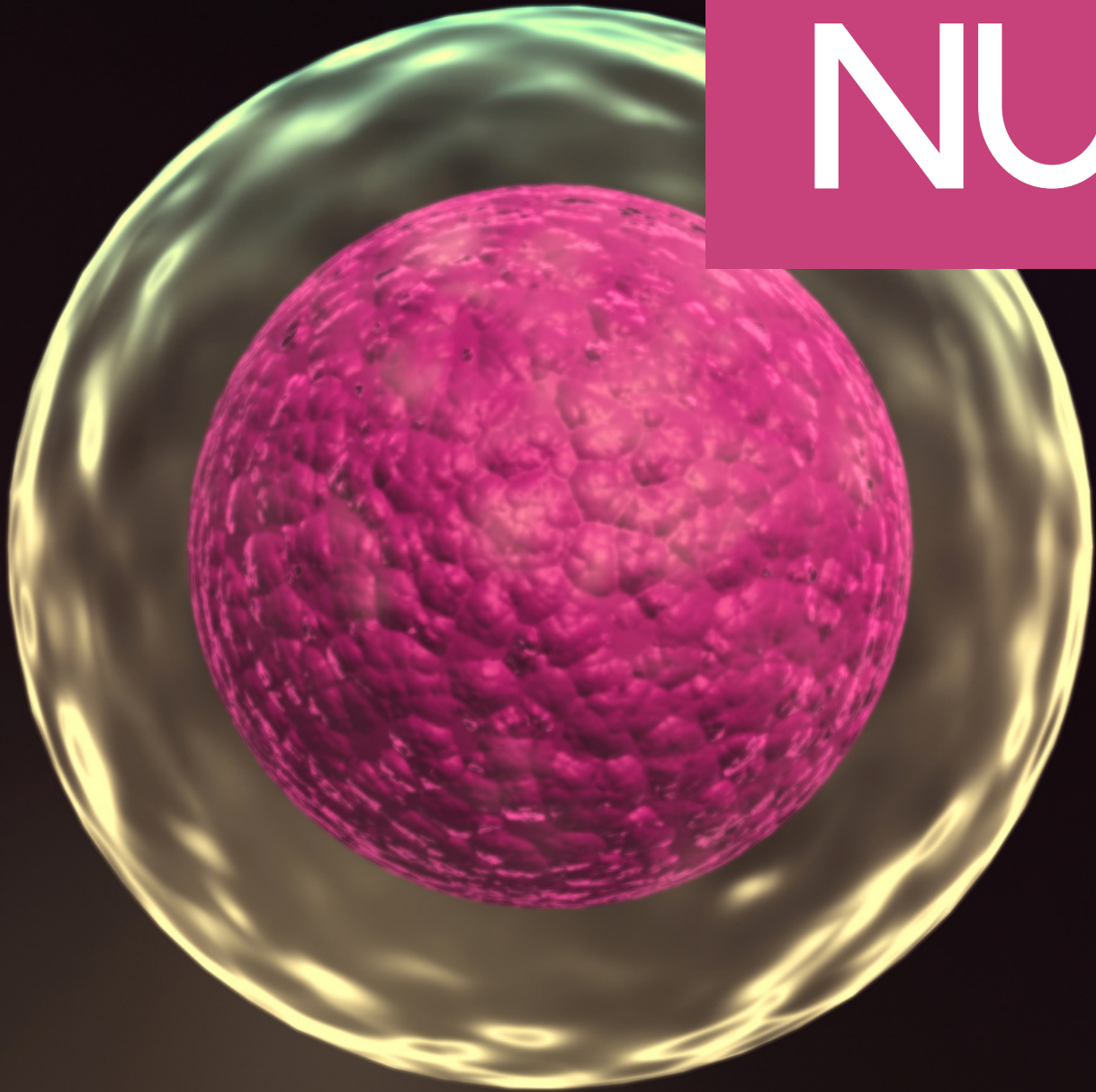


Special Ed

NUCLEUS



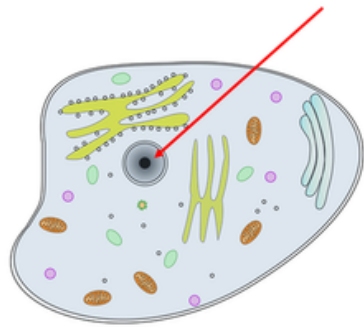
ALSO INCLUDES GOOGLE SLIDES



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!!

Organelles: Nucleus

By
Christa Joy
Special Needs for Special Kids



Christa Joy, Special Needs for Special Kids
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Table of Contents

Pages	Activity
4-5	Vocabulary board
6-9	Vocabulary cards
10-19	Vocabulary cut and paste
20-23	Circle maps
24-29	Match functions to parts of nucleus
30-32	Labeling parts of nucleus
33-37	Cloze worksheets
38-48	Assessment
49-50	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

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This unit contains 6 days of material in print and digital formats. 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.

Nucleus 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

- **Color Coding:** this is a really easy way to add more structure to a matching activity. Outline or color in an empty the corresponding picture symbols the task.
 - For more info, read more here: <https://specialneedsforspecialkids.com/differentiation/>
 - I also have a blog post on differentiation: <https://specialneedsforspecialkids.com/3-ways-easily-and-effectively/>
- **Make your own copies of the activities** yesterday. For that reason:
 - I often complete the activity myself that I could use year after year.
 - My copies were also helpful as more support or as a way for my work.

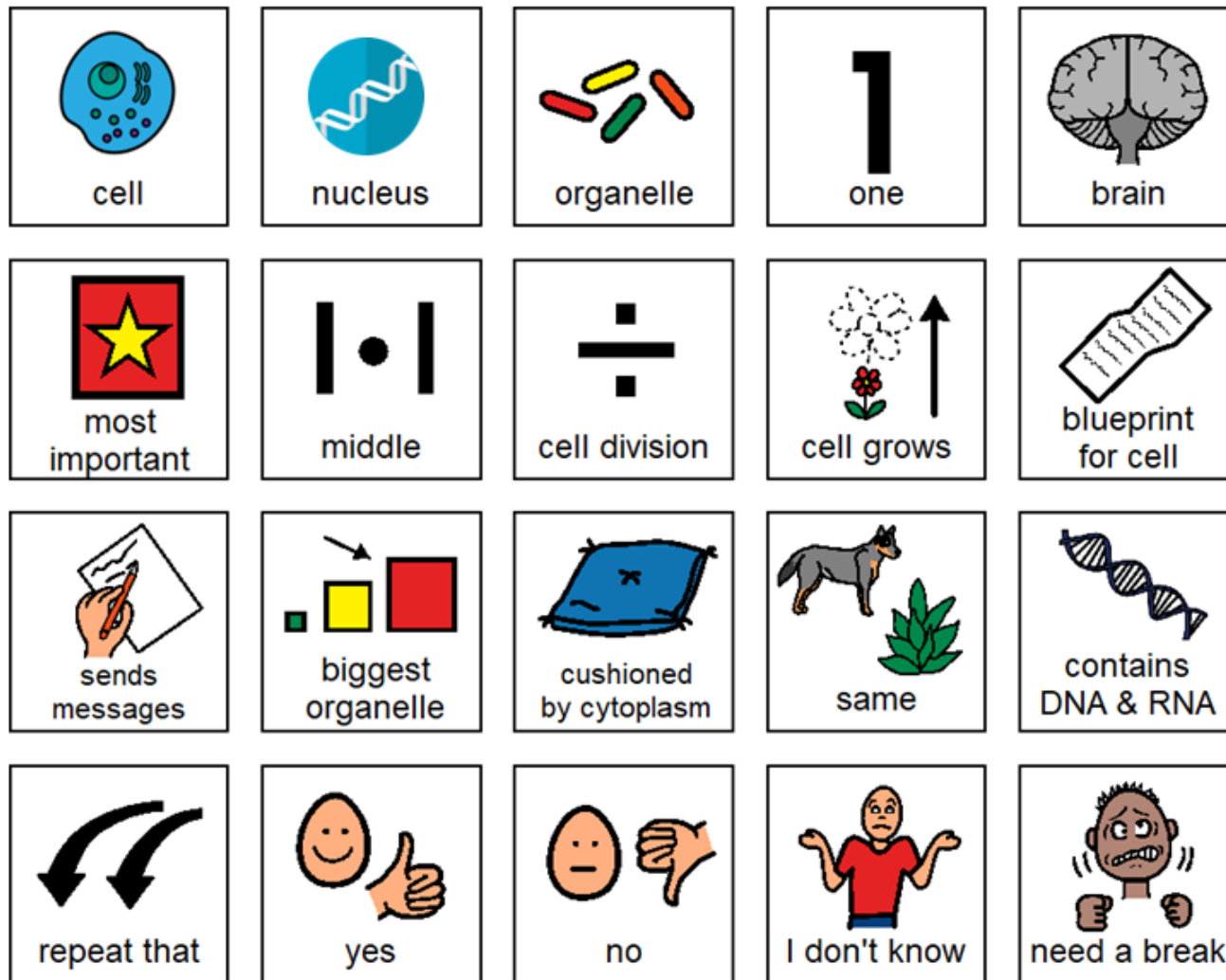
Day 3

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 I Spy Game (10 minutes)	<ul style="list-style-type: none"> • I play this game see description on day 2 • Today, try to give clues about the card your student needs to find <ul style="list-style-type: none"> ◦ Read definition ◦ Show real photo that relates to card from book ◦ Describe the picture • Discuss relevant points on the card <ul style="list-style-type: none"> ◦ You can also play this game in this manner having them find the symbol on their vocabulary board 	<ul style="list-style-type: none"> • Vocabulary cards (student set and teacher set) • Vocabulary board
Labeling activity review (5 minutes)	<ul style="list-style-type: none"> • Review the labeling worksheet completed yesterday 	<ul style="list-style-type: none"> • Complete labeling worksheet
Matching activity (10 minutes)	<ul style="list-style-type: none"> • Do the activity matching part of the nucleus to its function • There are 2 versions (use the version you don't use for review if needed prior to assessment) <ul style="list-style-type: none"> ◦ Version 1 is cut and paste ◦ Version 2 has students draw a line matching part to function ◦ Version 2 has a differentiated version with traced lines for students to trace • Make connections to the book as necessary 	<ul style="list-style-type: none"> • Labeling worksheets • Scissors • Glue
Sharing (10 minutes)	<ul style="list-style-type: none"> • Each student shares their finished worksheet with the group using the communication method of their choice 	<ul style="list-style-type: none"> • Completed worksheet • Communication devices

Quick Look

Day	Activity
1	<ul style="list-style-type: none"> • Book • Vocab cards introduction • Circle map
2	<ul style="list-style-type: none"> • Book • Vocab cards activity • Labeling activities
3	<ul style="list-style-type: none"> • Book • Vocab cards activity • Matching activities
4	<ul style="list-style-type: none"> • Book • Vocab cards cut and paste
5	<ul style="list-style-type: none"> • Book • Vocab cards activity • Close worksheets
6	<ul style="list-style-type: none"> • Assessment

There is a 6 days lesson plan with tips and detailed plans for each day with individual and group activities.



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!!

nucleus

The brain of the cell. Tells all the organelles what to do.



organelle

Things inside the cell that have their own membrane and special job to do.



nucleus

The brain of the cell. Tells all the organelles what to do.



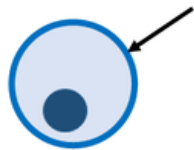
organelle

Things inside the cell that have their own membrane and special job to do.



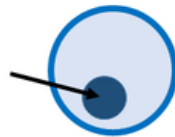
nuclear envelope

2 layers that surround and protect the nucleus.



nucleolus

Dense area inside the nucleus made up of RNA is where ribosomes are made.

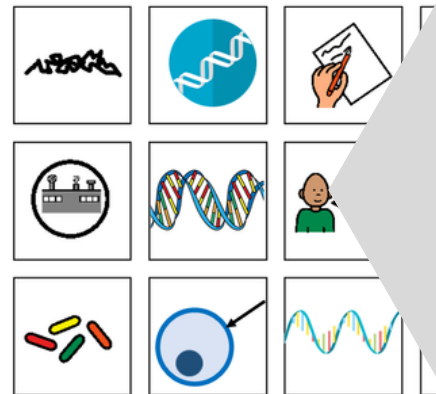


nuclear envelope

2 layers that surround and protect the nucleus.



Cut apart and match pictures with definition.



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There are 12 vocabulary cards that come in color and black and white.

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

There are also individual cut and paste activities included as well.

chromatin



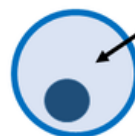
pores



ribosomes

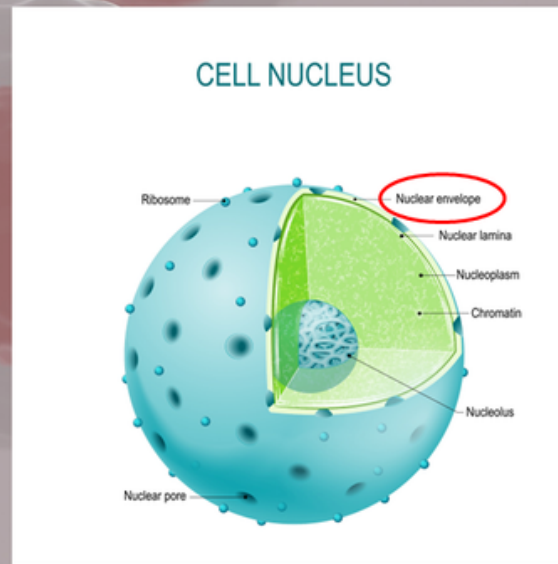


nucleopla



Organelles created in the nucleus that are like factories to create proteins for the cell to use.	Dense area inside the nucleus made up of RNA is where ribosomes are made.
Things inside the cell that have their own membrane and special job to do.	Transferring the message from the RNA to the ribosomes so proteins can be made.
Copy of the code from the DNA that it takes to the ribosomes as a building block to make proteins.	The messages the RNA is given in the nucleus and will carry to the ribosomes.
Channels in the nuclear envelope that allow small molecules (like ribosomes) to pass through into the cytoplasm.	2 layers that surround and protect the nucleus.

The nucleus is surrounded by a **nuclear envelope**. This envelope is made up of 2 layers and protects the nucleus from other things floating in the cytoplasm. It also keeps important structures inside the nucleus.



©Christa Joy, SNSK

Growth of the cell depends on the cell making the right proteins the cell needs to survive and ultimately divide. This is also controlled by the nucleus through 2 processes: transcription and translation.



©Christa Joy, SNSK

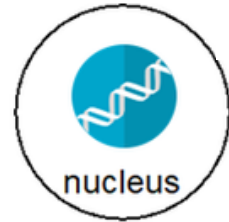
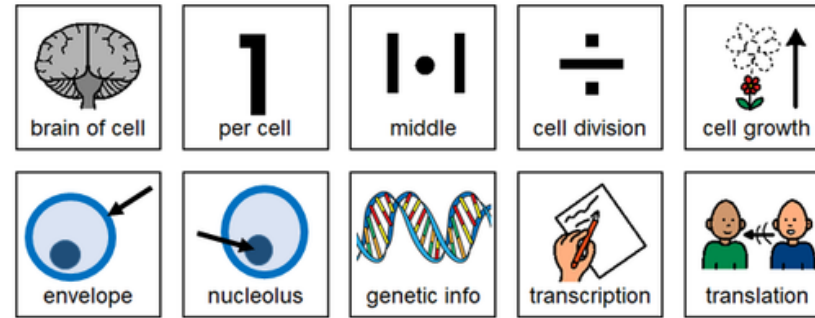
There is a 30-page book with simple text and engaging photos.

It comes in a PowerPoint version as well as a voice-recorded PowerPoint (so you don't have to print it out.)

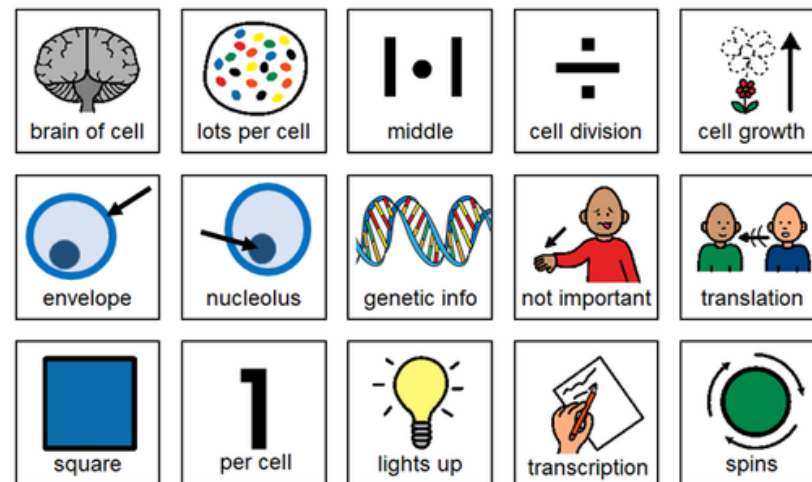
There is also a movie version you can use in google slides.

Errorless version

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



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



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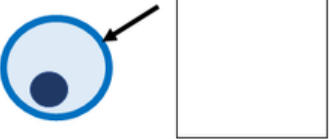


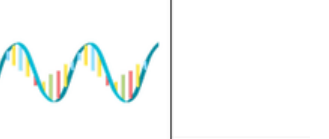

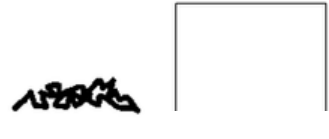


There is a circle map that reviews the main facts from the book.









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



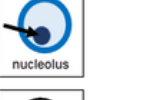

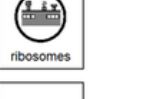






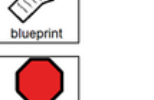




Match the function to each part of the nucleus.

Match the function below to the part of the nucleus responsible.

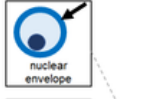

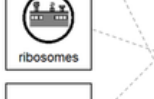
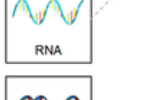




 nuclear envelope	 nucleolus
 ribosomes	 RNA
 DNA	 chromatin
 nucleoplasm	 pores

 cushion	 let's things out	 keeps things in/out	 makes ribosomes
 makes proteins	 carry messages	 resting form of DNA	 blueprint

Draw a line matching the part of the nucleus to its function.

 nuclear envelope	 carry messages
 nucleolus	 cushion
 ribosomes	 resting form of DNA
 RNA	 makes proteins
 DNA	 let's things out
 chromatin	 blueprint
 nucleoplasm	 keeps things in/out
 pores	 makes ribosomes

Draw a line matching the part of the nucleus to its function.

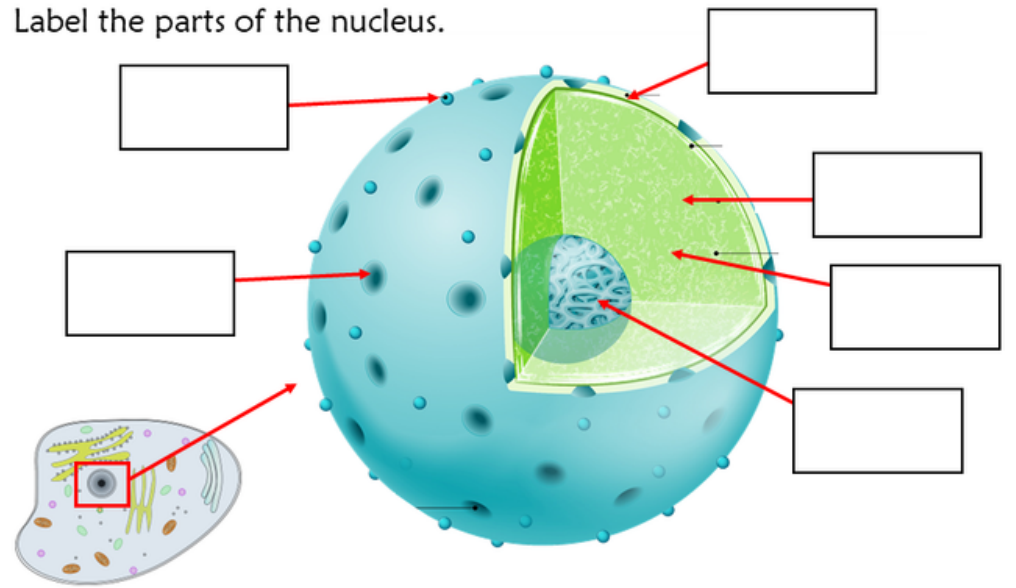
 nuclear envelope	 nucleolus	 ribosomes	 RNA	 DNA	 chromatin	 nucleoplasm	 pores
---	--	---	--	--	--	--	--

There is a matching activity, matching part of the nucleus to its function. There are 2 versions

- cut and paste
- drawing a line (includes differentiated version)

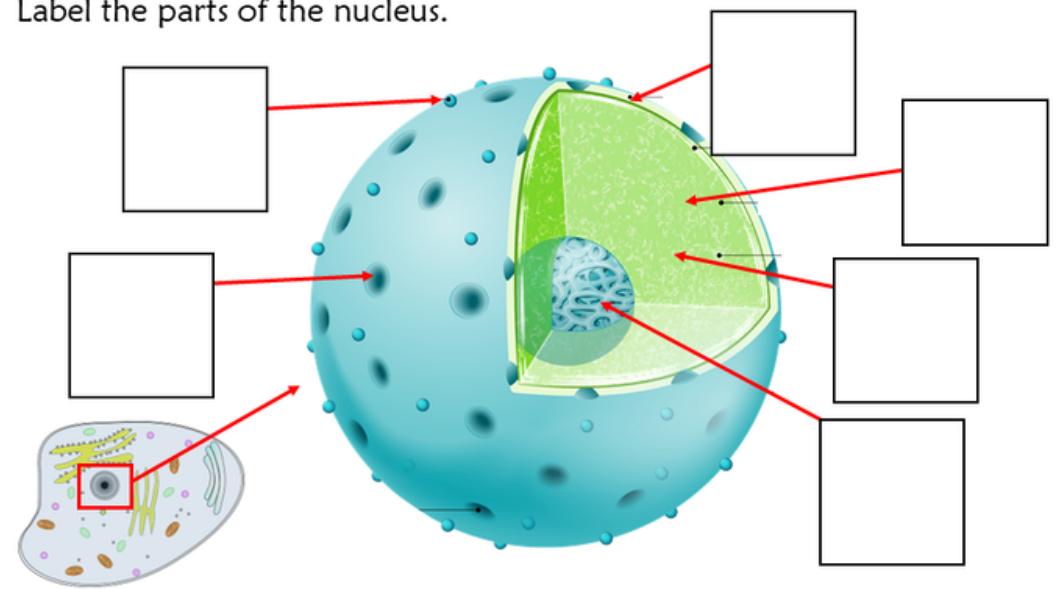
differentiated

Label the parts of the nucleus.



nucleolus	ribosome leaving	nucleoplasm
nuclea	envelop	

Label the parts of the nucleus.



nucleolus	chromatin	nuclear envelope	ribosomes	pores	nucleoplasm

Students will label parts of the nucleus. There is an option with words only and one with pictures. Suggestions for differentiation are included.

Nucleus

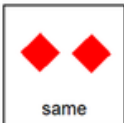
1. The nucleus is located in the of the cell.

2. There is normally only nucleus per cell.

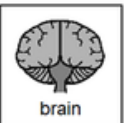
3. The nucleus acts like the of the cell.

4. The nucleus is the in plant and animals cells.

5. The surrounds and protects the nucleus.



same



brain



nuclear envelope



middle



one

Nucleus

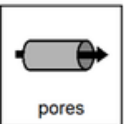
6. and are made in the nucleolus.

7. is the resting form of DNA inside the nucleus.

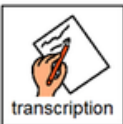
8. Ribosomes can escape into the cytoplasm through .

9. Recording messages to take to ribosomes is called .

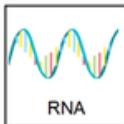
10. Turning the message into proteins the cell can use is called .



pores



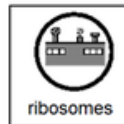
transcription



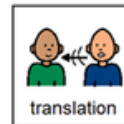
RNA



chromatin



ribosomes



translation

There are 2 fill-in-the-blank worksheets. These allow you to review and find areas that may need to be re-taught before the assessment.

1. All eukaryotic cells have one:



2. The nucleus is the _____ of the cell.



3. What surround the nucleus to keep things out?



4. Where are RNA and ribosomes made?

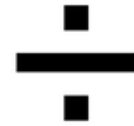


5. What is the resting form of DNA called that is stored in the nucleus?



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

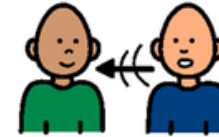
Q 7



division



transcription



translation

1. All eukaryotic cells have one:

- A. Ribosome
- B. Organelle
- C. Nucleus

2. The nucleus is the _____ of the cell.

- A. Muscle
- B. Brain
- C. Heart

3. What surround the nucleus to keep things out?

- A. Wall
- B. Nuclear envelope
- C. Fence

4. Where are RNA and ribosomes made?

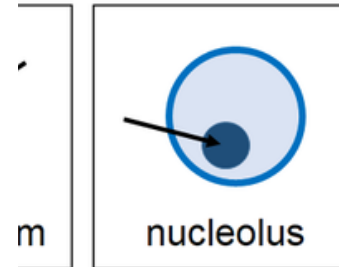
- A. Chromatin
- B. In pores
- C. Nucleolus

5. What is the resting form of DNA called that is stored in the nucleus?

- A. Ribosomes
- B. Nucleoplasm
- C. chromatin

6. What allows the ribosomes to travel out of the nucleus?

- A. Pores
- B. Chromatin
- C. RNA



nucleolus

There is a 10 question assessment that comes in 3 versions. Answer key included.



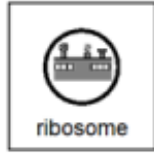
The Nucleus

By
Christa Joy

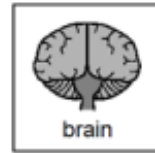
This unit also includes digital versions of the activities.

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

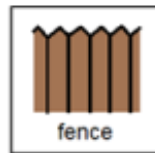
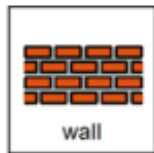
1. All eukaryotic cells have one:



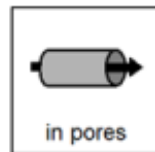
2. The nucleus is the _____ of the cell.



3. What surround the nucleus to keep things out?



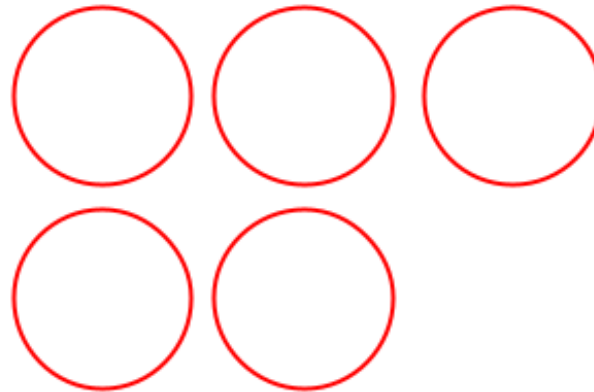
4. Where are RNA and ribosomes made?



5. What is the resting form of DNA called that is stored in the nucleus?

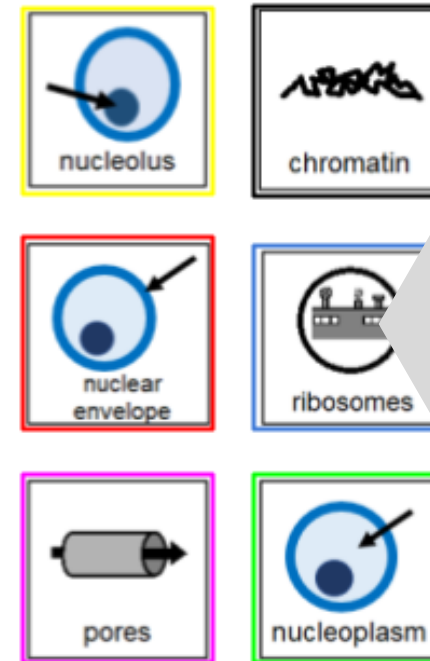
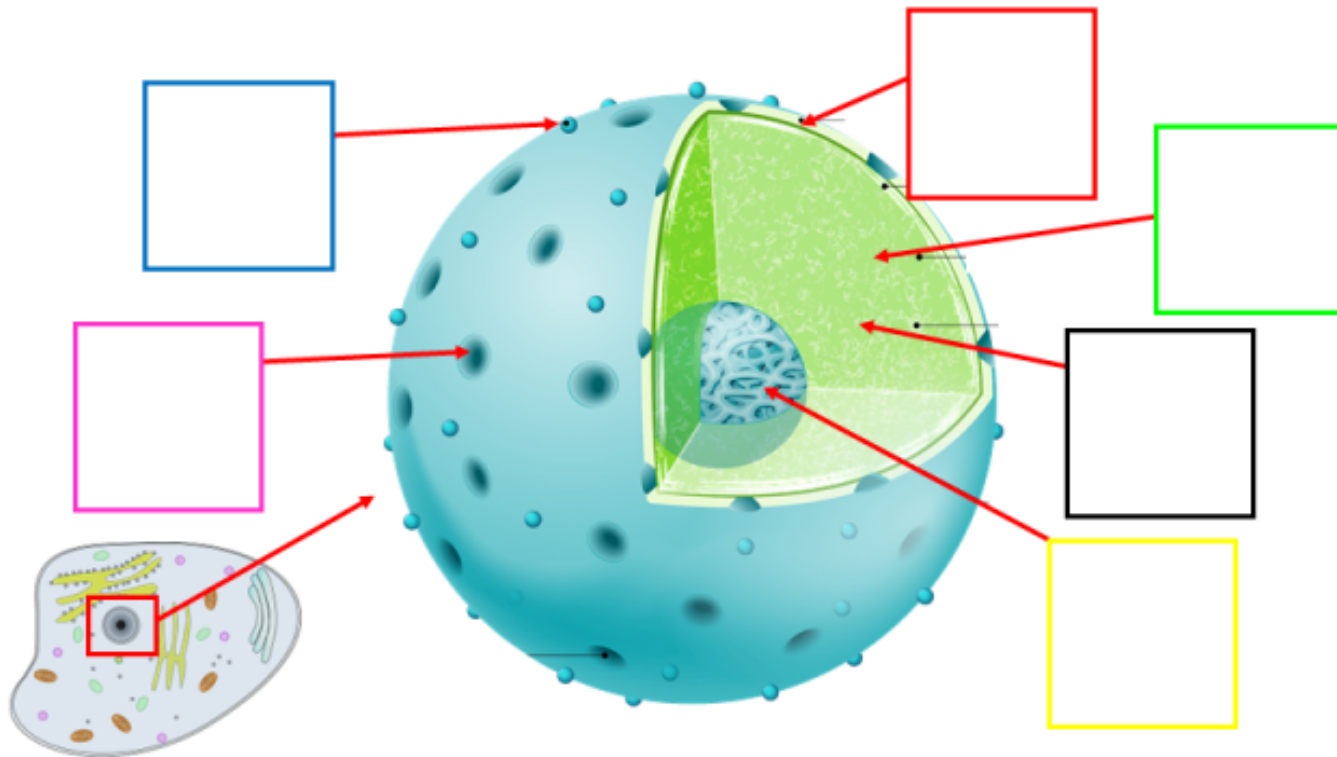


Circle the correct answer.

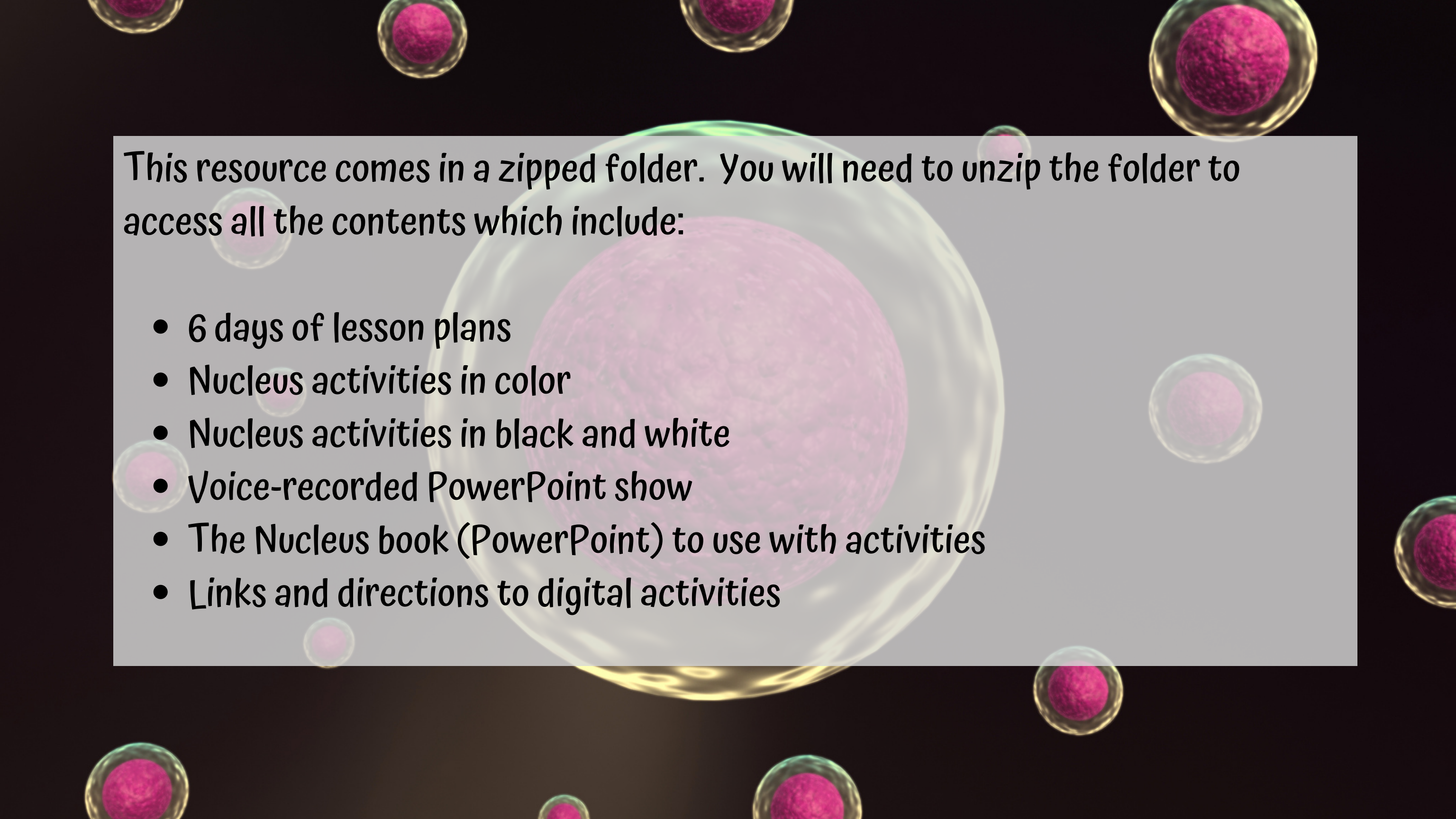


Each activity is set up so students can click and drag answers. No typing is required.

Label the parts of the nucleus.



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.



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

- *6 days of lesson plans*
- *Nucleus activities in color*
- *Nucleus activities in black and white*
- *Voice-recorded PowerPoint show*
- *The Nucleus book (PowerPoint) to use with activities*
- *Links and directions to digital activities*

This is a focused unit for students who need more practice with organelles in the cell.

I also have a Biology bundle that is an overview of the cell that includes mitosis and heredity.

[CLICK HERE](#)

