Curriculum & Technology Meeting

January 13, 2025

SOUTH

NORTH

Happy WINTER

Call Meeting to Order

Approval of October 2024 Minutes

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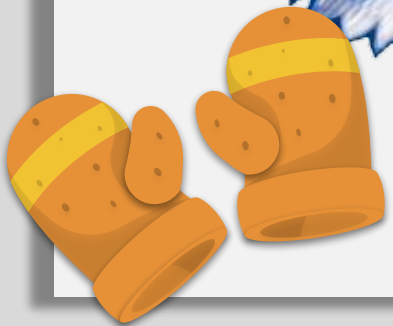
Welcome & Updates

❋ Jennifer Farthing, Director of Curriculum and Technology

Cybersecurity I Course

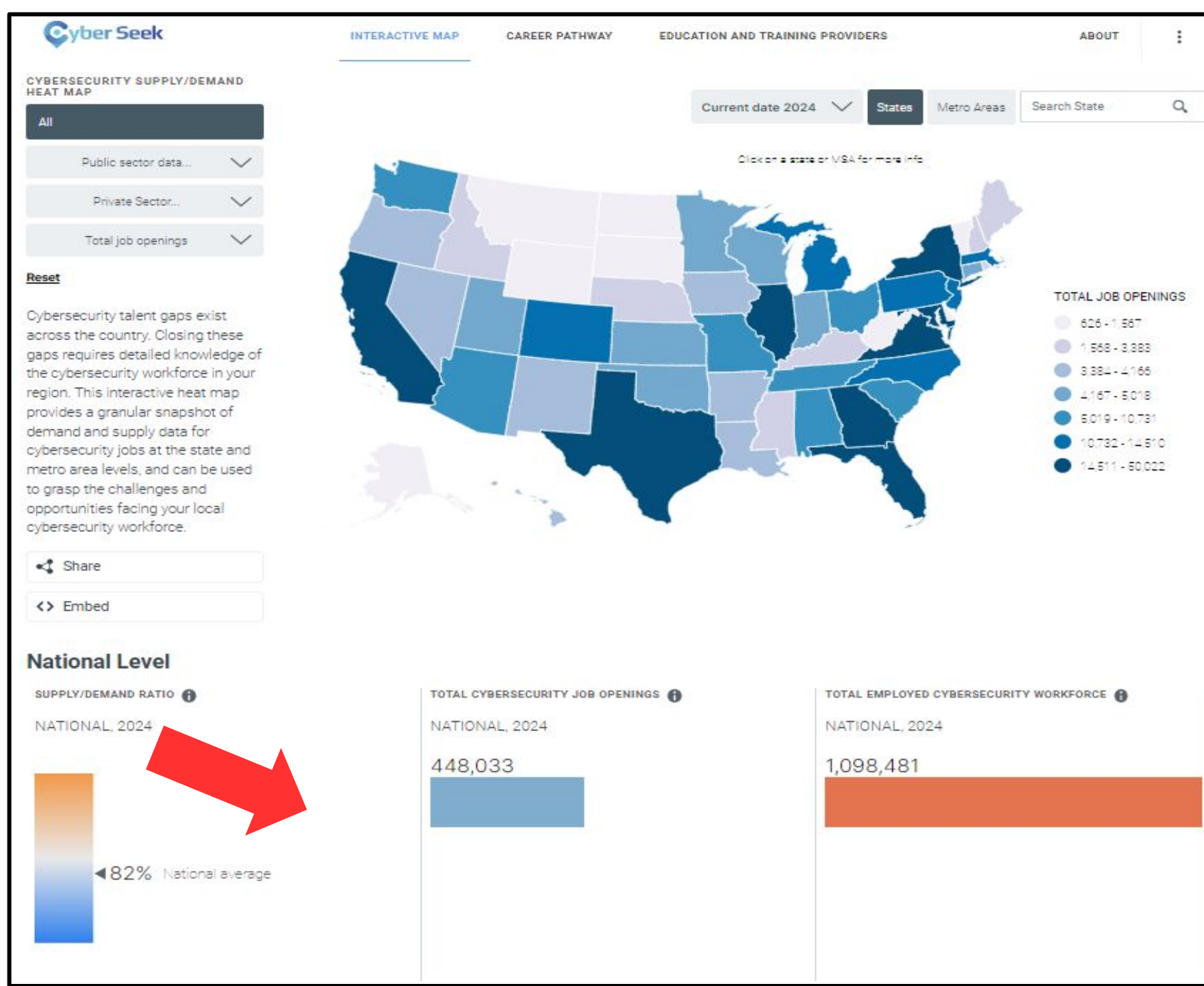❄ Jennifer Farthing, Director of Curriculum

and Technology
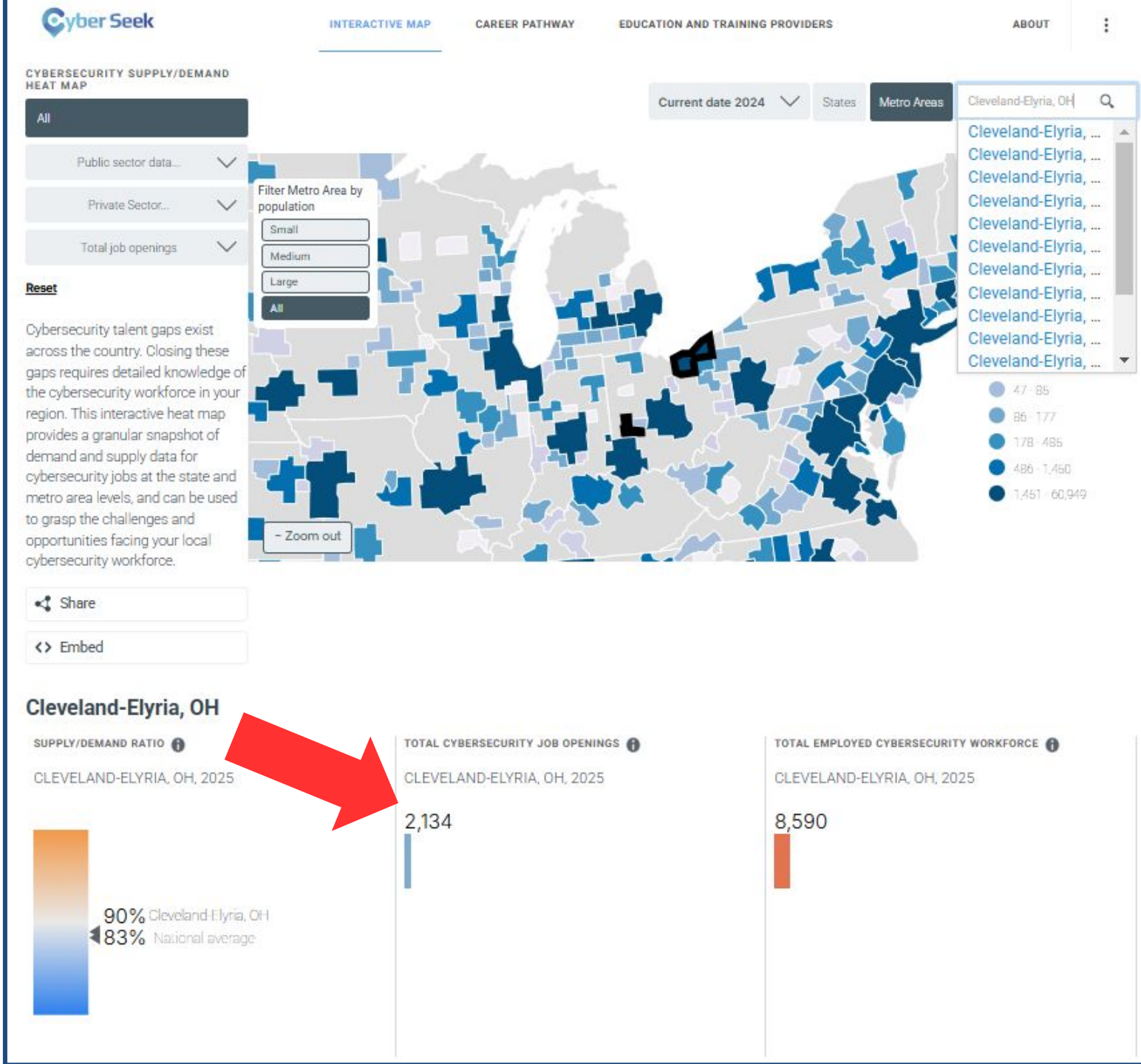
Why Cybersecurity?

THE NEED IS REAL!

- 448,000 openings

- All states

- All sectors

THE NEED IS LOCAL

- Cleveland

- 2,134 as of today.

- Total employed

  workforce of 8,590

- Largest certification

  need - Security+

- All industry sectors

- All size organizations

CYBERSECURITY CAREER PATHWAY

There are many opportunities for workers to start and advance their careers within cybersecurity. This interactive career pathway shows key jobs within cybersecurity, common transition opportunities between them, and detailed information about the salaries, credentials, and skillsets associated with each role. Note that jobs can span multiple career levels.

Roles | Skills and Certifications

FEEDER ROLE	ENTRY-LEVEL	MID-LEVEL	ADVANCED-LEVEL
Networking	Cybersecurity Specialist	Cybersecurity Analyst	Cybersecurity Manager
Software Development	Cyber Crime Analyst	Cybersecurity Consultant	Cybersecurity Engineer
Systems Engineering			
Financial and Risk Analysis	Incident & Intrusion Analyst		
Security Intelligence		Penetration & Vulnerability Tester	Cybersecurity Architect
	IT Auditor		
IT Support			

CAREER PATHWAYS IN CYBER

A NATIONAL IMPERATIVE

- Foundational cyber skills for all

- Transform cyber education

- Expand national cyber workforce

- Strengthen federal cyber workforce
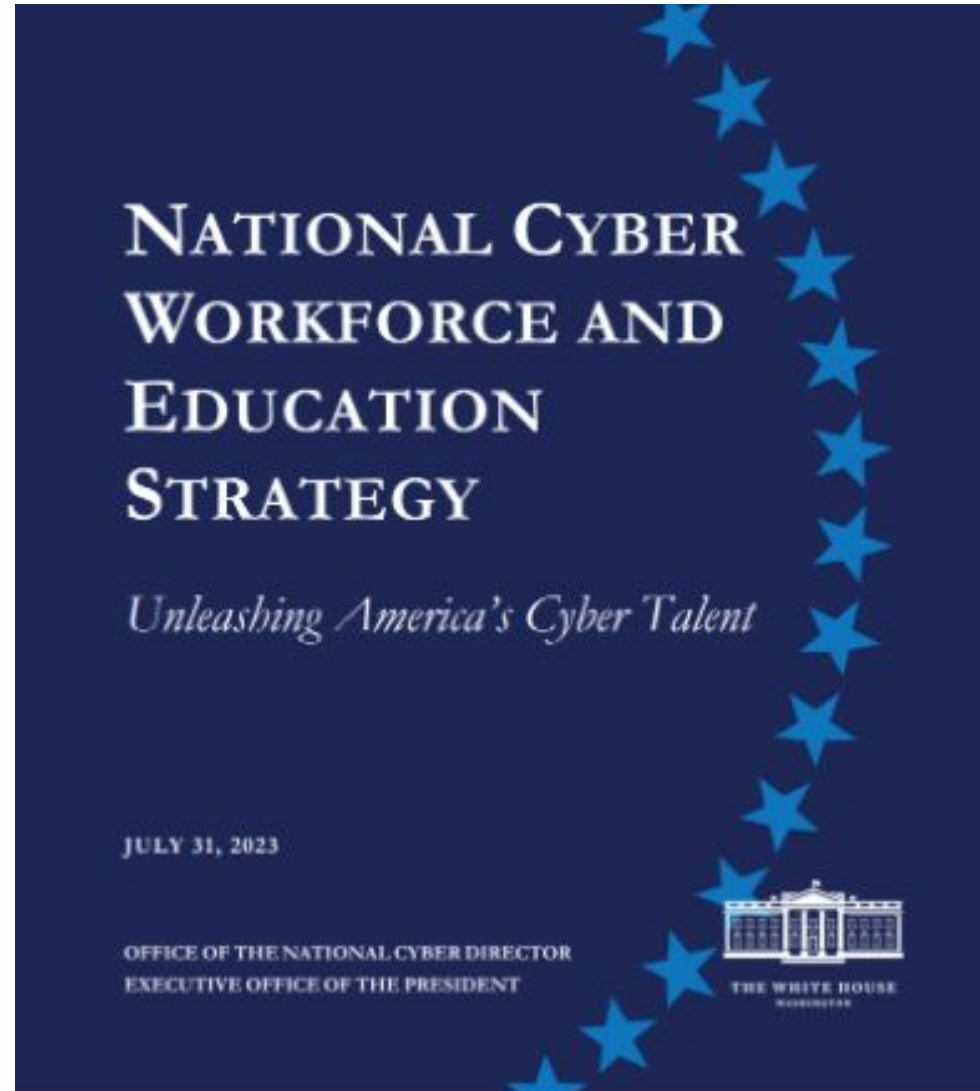
CYBERSECURITY COURSES & CURRICULUM

Fully customizable cybersecurity course sequence (Cyber 1 → Cyber 3) includes:

SCOPE AND SEQUENCE

UNIT PLANS & DAILY LESSONS

TEACHER GUIDES & TRAINING

INTERACTIVE HANDS-ON RESOURCES

ACCESS TO PROGRAM & INDUSTRY EXPERTS

PROGRAM IMPLEMENTATION

- Pre-launch site visit with a Cyber Advisory Board
- Regularly scheduled onboarding meetings
- Access to detailed implementation guides
- Access to comprehensive curriculum guides
- Cyber industry connections for program and support
- Pre-launch and ongoing teacher training

ONGOING SUPPORT

- Annual in-person site visit support
- Monthly meetings with district program leadership and teachers
- Unlimited asynchronous support
- Implementation tools and guides
- National cyber competition support and coaching
- Connection to NSA Centers of Academic Excellence for dual credit support
- Connections and support for mentor recruitment and implementation

OUR LEARNING PARTNERS

THE PARADIGM LEARNING MODEL

- Aligned to standards.

- Guided by Industry.

- Passion. Curiosity. Performance.

- Play. Learn. Perform.

- PC10 - Professional Skills.

- Certifications and Competitions.

- Prep for Internship.

Unit 4: Introduction to Cryptology	2-3 Weeks

This unit introduces students to Cryptology, the science of secure communications. Students will learn the basics of Cryptography - code making and Cryptanalysis - code-breaking. They will also explore a number of different ciphers and have an opportunity to solve puzzles using some of these same ciphers. There is also an opportunity in this unit to explore the Venona project and the Navajo Code Talkers, which will provide students a historical perspective and insight into codebreaking. The unit concludes with students participating in a number of different crypto/cipher challenges.

K-12 Cybersecurity Standards	**Core Concept:** Security (SEC), **Sub Concept:** Information Security **Topic(s):** Cryptography (CRYP) **Grade Band:** 9-12.SEC.CRYP Analyze how modern advancements in computing have impacted encryption.

Security+ and Cryptology

Cryptology is an important topic for the Security+ certification exam. To be well prepared for the exam, students should have a solid understanding of the following concepts in cryptology:

1. Cryptography: The process of encoding information to keep it secure from unauthorized access.
2. Symmetric encryption: A type of encryption where the same key is used to encrypt and decrypt data.
3. Asymmetric encryption: A type of encryption where different keys are used to encrypt and decrypt data.
4. Hashing: The process of transforming data into a fixed-length output that can be used to verify the integrity of the original data.
5. Key management: The process of generating, distributing, and storing encryption keys.

It's also essential to have a general understanding of the security risks associated with cryptology, such as encryption weaknesses, key management issues, and attacks on encryption systems. By having a solid understanding of these concepts, your students will be well prepared to tackle related questions on the Security+ certification exam.

Learning Outcomes

1. Students will gain a basic knowledge of cryptology (along with cryptography and cryptanalysis) and how they are all related.
2. Students will understand some basic cryptographic attacks and how they vary from

Recommended Resources

1. Introduction to Cryptography.
2. Khan Academy - What is Cryptography
3. NOVA - Secrets, Lies and Atomic Spies Teaching Guide

Open to Grades 10, 11, 12
Prerequisite: Passion for this topic (Students do not need previous experience in cybersecurity or computer science)
Fee: TBD

Cybersecurity 1 is the first course in the Paradigm Twinsburg City School District Cybersecurity Program. Students begin their career in cybersecurity through a combination of certification aligned experiences, engaging with industry experts and hands-on-learning. Students will learn about Cyber Ethics, Fundamentals of Computing, Networking, Cryptology, Linux, System Administration, Cybersecurity Threats, Risk Identification, and much more. Students can expect an engaging learning environment with simulations and authentic, cybersecurity applications during class and are expected to participate in cybersecurity competitions throughout the year.
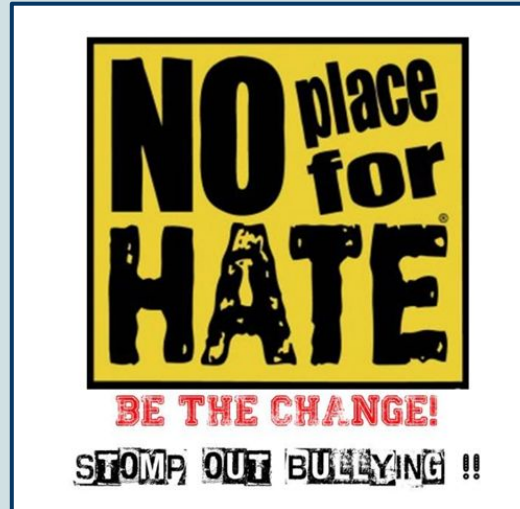
No Place for Hate & We Thinkers Proposal
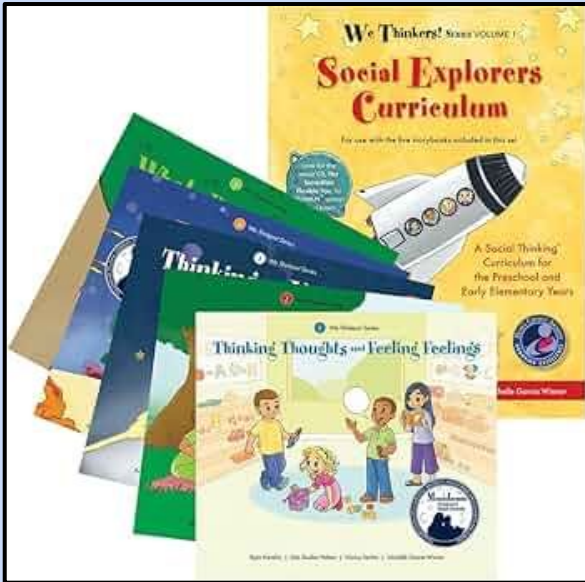
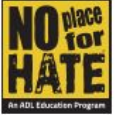By Natasha Williams
Wilcox Primary

No Place For Hate

- School Wide Program
- Promote diversity & inclusion
- Address bias & bullying
- Increase feeling of belonging
- Promote kindness, awareness, acceptance
- Lessons & activities

THE NO PLACE FOR HATE® PLEDGE
ELEMENTARY SCHOOL

01 **I PROMISE** to do my best to treat everyone fairly.

02 **I PROMISE** to do my best to be kind to everyone — even if they are not like me.

03 **IF I SEE** someone being hurt or bullied, I will tell a teacher.

04 **EVERYONE** should be able to feel safe and happy in school.

05 **I WANT OUR SCHOOL** to be No Place For Hate®.

Have You Signed the No Place For Hate® Promise Yet?
Find out how from your school's No Place For Hate® committee

ADL
FIGHTING HATE FOR GOOD

We Thinkers

- Evidence based
- Supports social -emotional development, perspective taking, self-awareness
- Develops thinking and social skills for students to become:
  - Social observers
  - Flexible social thinkers
  - Social problem solvers
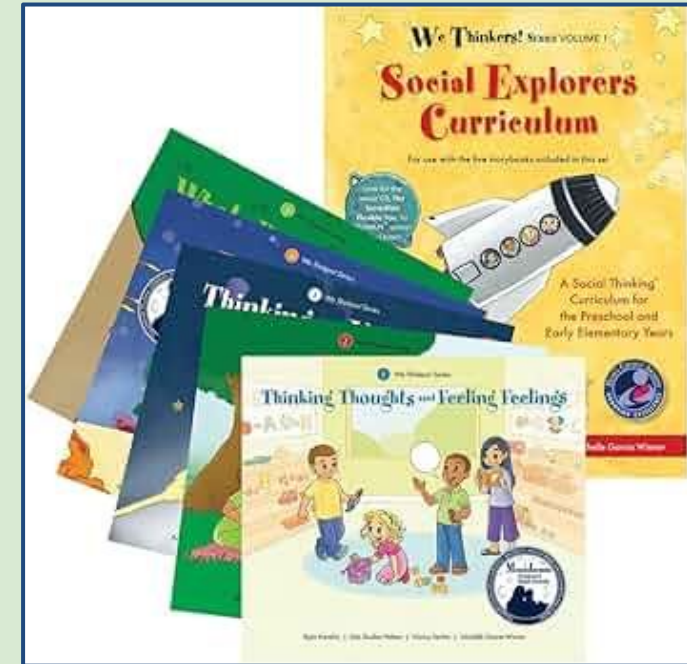
No Place For Hate

Ohio Standard I: Comprehensive school counseling plan: developmental, preventative and responsive, aligning with the school's mission to enhance academic, career and social/emotional development of all students.

Ohio Standard II: Direct service: Academic, Career & Social-Emotional Development.
- Classroom guidance
- Education on understanding self and others
- Multicultural/diversity awareness
- Career Awareness, exploration, planning
- Peer relationships, effective social skills, conflict resolution

Ohio Standard V: Support an equitable, safe, inclusive and positive learning environment for all students.
- School climate

Calendar Proposal 2025-2026

- Quarter 1- No Place for Hate Pledge introduction
- Quarter 2- 1st lesson - Anti-bullying
- Quarter 3- 2nd lesson - New Year around the world
- Quarter 4- 3rd lesson - Career- awareness

No Place For Hate

SEL standards:

Personal/Social Domain:

PS:A2.1 recognize that everyone has rights and responsibilities

PS:A2.2 respect alternative points of view

PS:A.2.3 recognize, accepte, respect and appreciate individual differences

PS:A2.4 recognize, accept and appreciate ethnic and cultural diversity

PS:B1.5 demonstrate when, where and how to seek help for solving problems
and making decisions

PS:B1.6 know how to apply conflict resolution skills

PS:B1.7 demonstrate a respect and appreciation for individual and cultural differences

Academic Development:

A:A1.2 display a positive interest in learning

A:A3.1 take responsibility for their actions

Career Development Domain:

C:C1.1 understand the relationship between educational achievement and career success

C:C1.3 identify personal preferences and interests which influence career choice and success

C:C2.2 learn how use conflict management skills with peers and adults

C:C2.3 learn to work cooperatively with others as a team member

We Thinkers
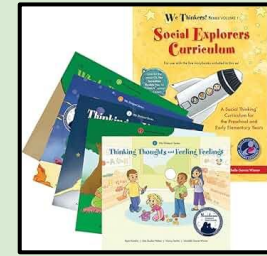
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Ohio Standard II: Direct service: Academic, Career & Social-Emotional Development.
- Classroom guidance
- Education on understanding self and others
- Peer relationships, coping strategies, effective social skills
- Communication, problem-solving, and conflict resolution

Ohio Standard IV: Evaluation & Data
- Classroom counseling lessons Pre/Post test

Calendar Proposal 2025

- January - lesson 1 Thinking Thought and Feeling Feelings
- February- lesson 2 The Group Plan
- March - lesson 3 Thinking with Your Eyes
- April - lesson 4 Body in the Group
- May - lesson 5 Listening with Brain and Body

We Thinkers

SEL standards:
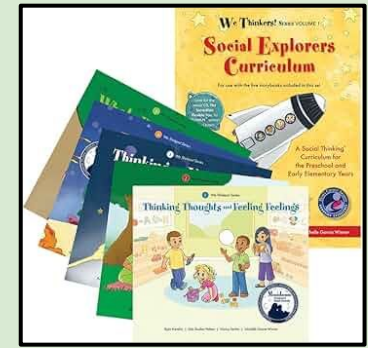
Academic Development Domain:
A:A1.2 display positive interest in learning
A:A1.5 identify attitudes and behaviors which lead to successful learning
A:A2.3 use communication skills to know when and how to ask for help when needed
A:A3.1 take responsibility for their actions
A:A3.2 demonstrate the ability to work independently, as well as the ability to work cooperatively with other students

Career Development Domain:
C:C2.3 learn to work cooperatively with others as a team member

Personal/Social Domain:
PS:A1.1 develop positive attitudes toward self as a unique and worthy person
PS: A2.6 use effective communication skills
PS: A2.7 know that communication involves speaking, listening and nonverbal behaviors
PS:B1.2 understand consequences of decisions and choices
PS:B1.3 identity alternative solutions to a problem
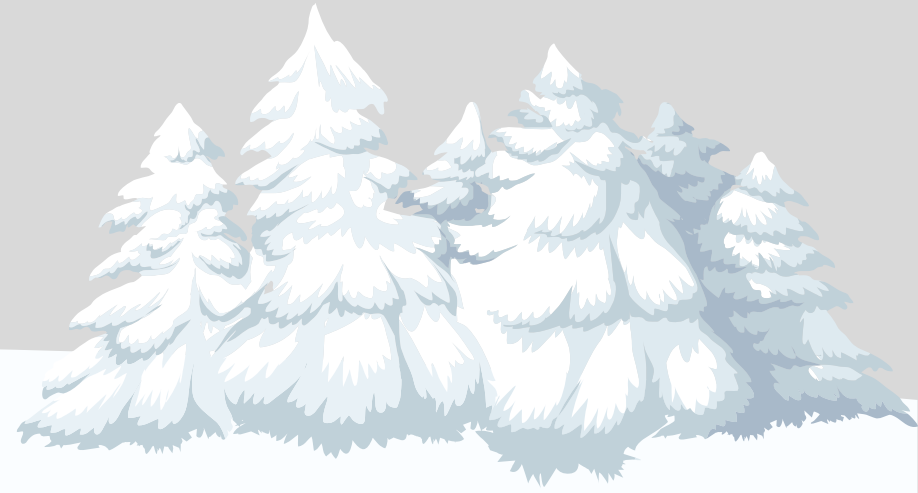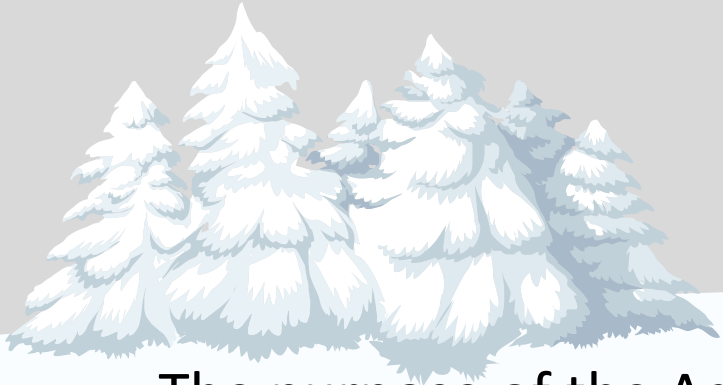PS:B1.8 know when peer pressure is influencing a decision

Summary of Changes to the Ohio Operating Standards for the Education of Children with Disabilities

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Special Education Model Policies & Procedures

Marcy Spence, Pupil Services Supervisor

The purpose of the Administrative Code (3301-51), The Operating Standards for the Education of Children with Disabilities (OSECD), is to ensure that all children with disabilities residing in Ohio between the ages of three and twenty-one years, inclusive, including children with disabilities who have been suspended or expelled from school, have available to them a free appropriate public education (FAPE), as provided by Part B of the Individuals with Disabilities Education Act, as amended by the Individuals with Disabilities Education Improvement Act of 2004 (IDEA) at 20 U.S.C. 1400 , related federal regulations at 34 C.F.R. Part 300 , Chapter 3323. of the Revised Code, the provisions of this chapter of the Administrative Code, and applicable state policies, procedures, and guidelines issued by the superintendent of public instruction.
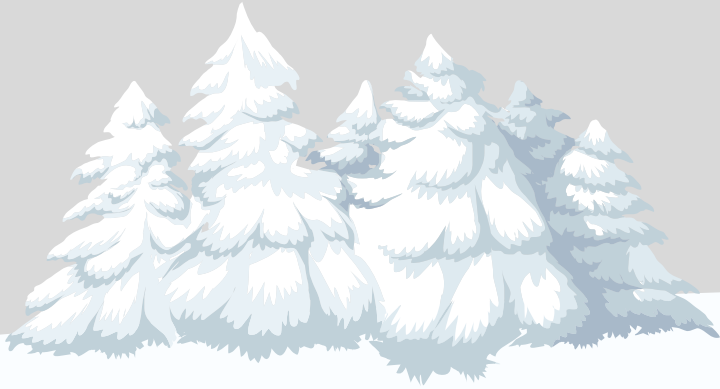
# Operating Standards for the Education of Children with Disabilities

- The **Ohio Operating Standards for the Education of Children with Disabilities** are typically reviewed and updated every **five years** by the **Ohio Department of Education and Workforce (Ohio DEW)** . However, revisions may occur sooner if there are significant changes in **federal laws** or **state policies** , such as updates to the **Individuals with Disabilities Education Act (IDEA)** or related regulations.
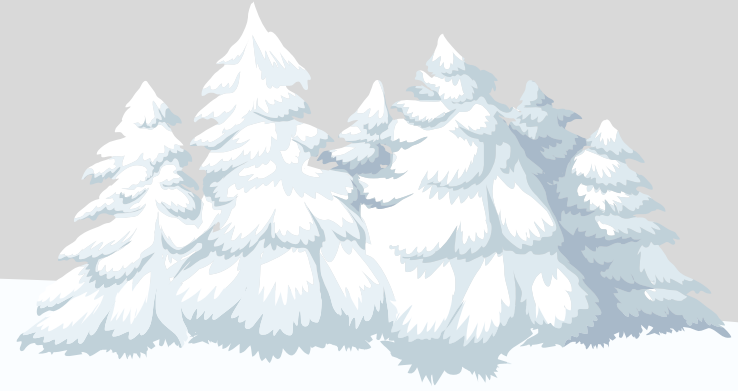
The review process includes:

1. **Public input** from stakeholders like educators, parents, and advocacy groups.
2. **State Board of Education approval** after a period of public comment.
3. **Updates to align with federal regulations** and best practices for special education services.
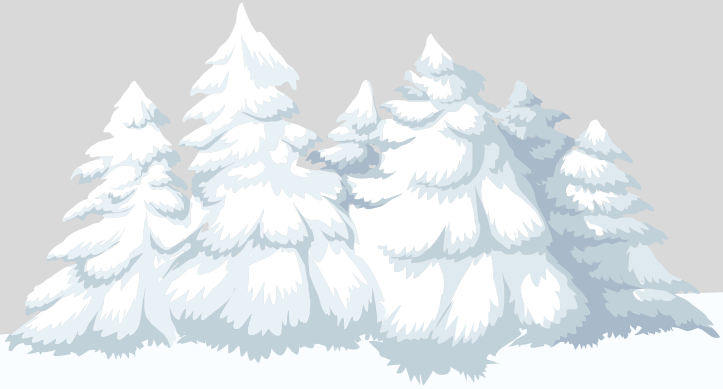
Overall Changes

Items were added, removed, or amended for reasons such as:

- Changes in federal and state law
- Word restriction or stakeholder feedback
- Clarification or non-applicability to the rules
- New standards went into effect December 1, 2023 with guidance published June 2024

Changes to the Following Rules and their Corresponding Sections:

1. 3301-51-01 Applicability of requirements and definitions
2. 3301-51-03 Child Find
3. 3301-51-04 Confidentiality
4. 3301-51-05 Procedural Safeguards
5. 3301-51-06 Evaluation
6. 3301-51-07 Individualized education program (IEP)
7. 3301-51-09 Delivery of services
8. 3301-51-10 Transportation of Children with Disabilities
9. 3301-51-11 Preschool children eligible for special education
10. 3301-51-21 Providing instructional materials to children with visual impairments and others with print disabilities that are listed for sale by publishers with the superintendent of public instruction

11. 3301-51-07 Individualized education program (IEP)
12. 3301-51-09 Delivery of services
13. 3301-51-10 Transportation of Children with Disabilities
14. 3301-51-11 Preschool children eligible for special education
15. 3301-51-21 Providing instructional materials to children with visual impairments and others with print disabilities that are listed for sale by publishers with the superintendent of public instruction
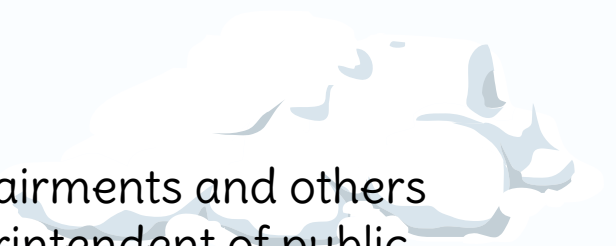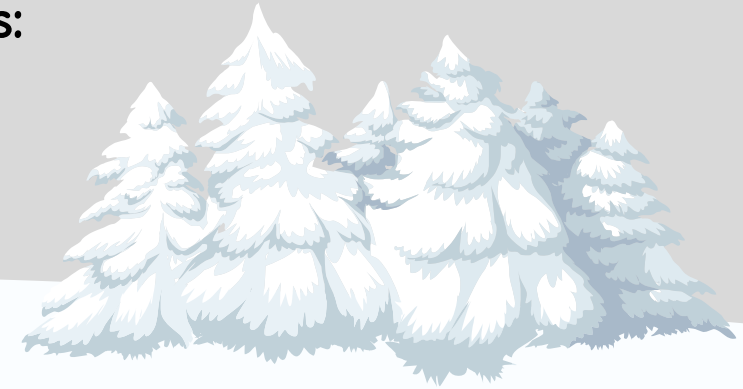
3301-51-01 Applicability and Definitions

- Definitions added, removed, or amended to align with federal and state law.

- Added definition for 'educational agency' to align with 'public agency,' a federal term

- Updated 'child with a disability' definition:

- - Replaced 'mental retardation' with 'intellectual disability'.

- - Expanded age range for developmental delay from 3-5 to 9-11 years old.
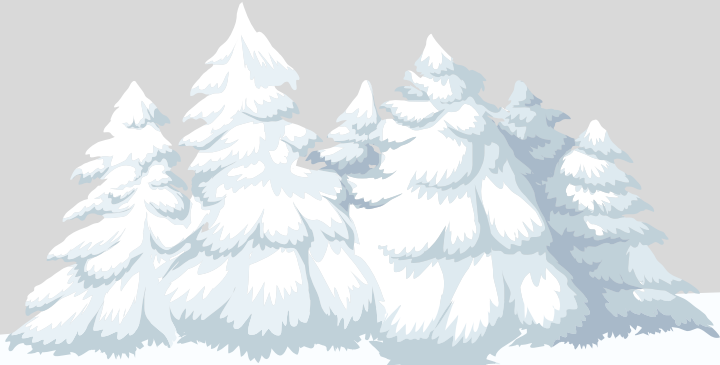
3301-51-03 Child Find
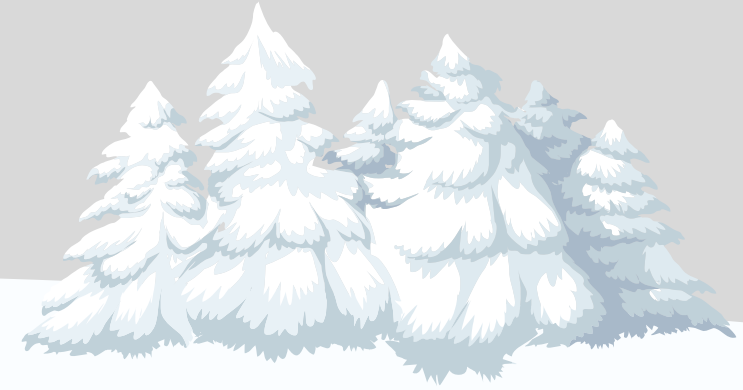
Language updated for consistency with IDEA terminology.

Expanded age range for developmental delay from 3-5 to 9-11 years old.

Added language on risk ratio and disproportionality per IDEA requirements.

Most Significant Change Expansion of the Developmental Delay category from Preschool to School Age

As of the bill's effective date, April 6, 2023: the definition of a "child with a disability" may include a child who is at least three years of age and less than **ten** years of age, who is experiencing developmental delays, as defined by standards adopted by the state board of education and as measured by appropriate diagnostic instruments and procedures in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development; and who, by virtue of their disability, needs special education and related services.

3301-51-04 Confidentiality

- Sections consolidated to align with federal law.
- New requirements added for educational agency responsibilities.
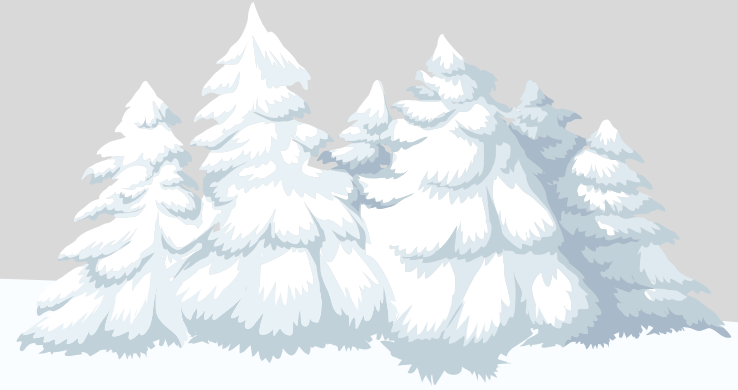
3301-51-05 Procedural Safeguards

- Added surrogate parent duties as required by IDEA.
- Clarified resolution meeting and expedited due process hearing processes.
- Revised mediation provisions to reflect IDEA 34 CFR 300.506(b)(3)(ii).
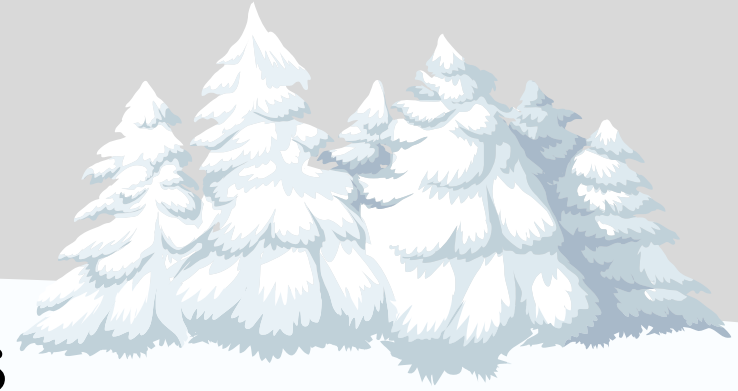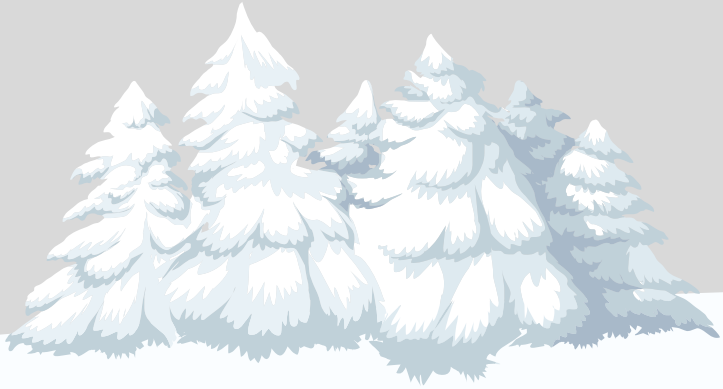
3301-51-06 Evaluation

- Expanded age range for developmental delay from 3-5 to 10 years old.
- Defined timelines for evaluations of students transferring agencies:
- - 30 days to accept prior evaluation or obtain consent.
- - 60 days from consent to complete evaluation.
- Amended language on medical consultations to 'as appropriate'.
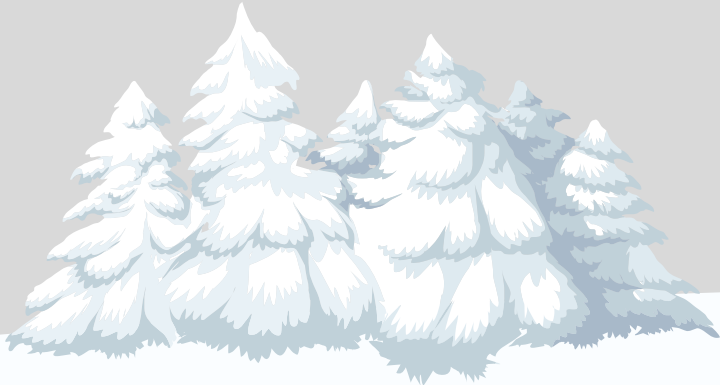
3301-51-07 Individualized Education Program (IEP)

- Progress must be reported on transition goals and objectives.
- Updated terminology:
- - Replaced 'IEP' with 'individualized education program'.
- - Replaced 'school district' with 'educational agency'.
- Added specific timelines for record transmittal.

3301-51-09 Delivery of Services
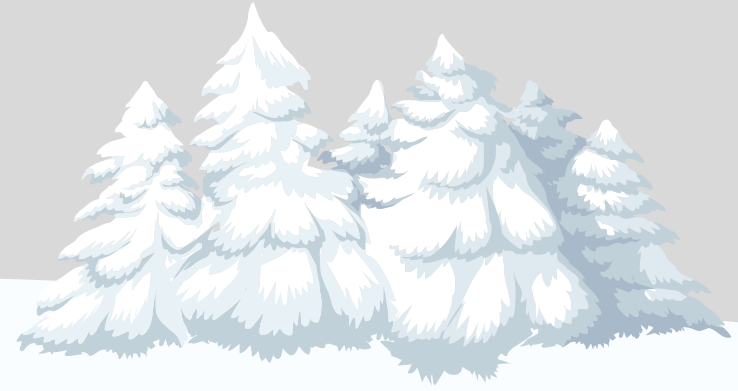
- Language updated for consistency with IDEA terminology.

- Revised personnel coordination and transition service descriptions.

- Removed outdated provisions related to work-study and vocational coordinators. This includes title for Vocational Special Educators. They are now called Career-Technical Special Education Coordinators (CTSE).
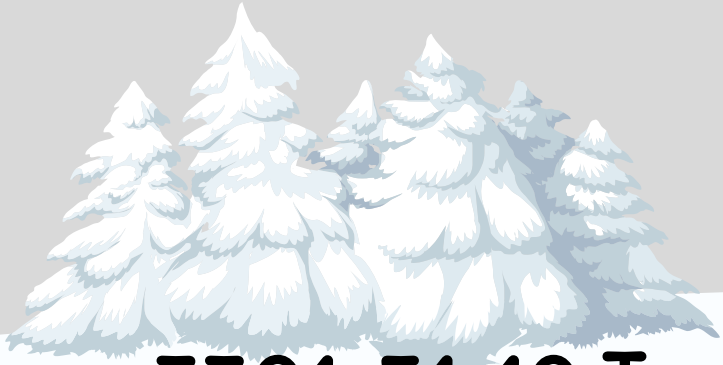
3301-51-10 Transportation of Children with Disabilities

- Clarified language around boards of education and privately owned vehicles.

- Added references to state residential schools and general transportation rules.

- Updated age range for developmental delay to 10 years old.

3301-51-11 Preschool Children Eligible for Special Education

- Amended definition of 'public school preschool integrated class
- Removed the requirement to complete a reevaluation for students under the category of Developmental Delay prior to transition to Kindergarten.

3301-51-21 Instructional Materials for Visual Impairments

- Amended language to ensure materials conform to federal accessibility standards.

Questions?

Motion to Adjourn

Stay warm…

Our next meeting will be April 7, 2025!