

Remote learning for students with special education needs:

Educator tip sheet

Universal design for remote learning and a tiered approach

Virtual learning, like classroom learning, should be inclusive and follow Universal Design for Learning. (UDL; Basham et al., 2020; Obiakor et al., 2010). UDL is based on the understanding that approaches to teaching, learning and assessment that respond to the particular needs of a student or groups of students can be useful for all. With UDL, teaching is tailored to draw on the strengths and meet the needs of all students (Learning for All, 2013).

The tiered approach “is based on frequent monitoring of student progress and the use of assessment data, focusing on

learning rate and level, to identify students who are facing challenges in learning and to plan specific assessment and instructional interventions of increasing intensity to address their needs effectively” (Learning for All, p. 24). Tier 1 can be described as good for all, Tier 2 as necessary for some, and Tier 3 as essential for few.

Tier 1 practices: Welcome, understand & partner

- Connect with students and families at the start of the course. Find out about their hopes and needs. Check if they have the supports and resources they need to access and navigate the virtual course. Let them know how and when staff can be contacted.
- Get to know your students, for example with a survey or an orientation meeting. Ask for information about access and inclusion, such as the assistive technologies that work best for the learner, their Internet access, and how they like to communicate.
- Virtual ice-breakers can help create community. Tools that allow for brainstorming or short videos can help build community and help students develop their technology skills.
- Digital ‘check-ins’ each day are used by many teachers when classes start. This could include asking students to share a special moment or event, a brief discussion of a current event, or taking the ‘temperature’ of the group using a poll
- Offer opportunities for students to learn more about one another and their teacher (e.g. create and post introduction videos that include name pronunciation and preferred pronouns, have a group of students share each week about a particular interest, experience or skill).
- Create learning spaces that reflect the community of learners (personalized avatars, images that reflect diversity, a range of student work displayed)
- Connect beyond the classroom for learning (e.g. bring in guest speakers from students’ community, virtual field trips, connect with students in classrooms in other cities/provinces/countries, have students’ family members contribute expertise or experience that relates to curricular expectations)

Tier 1 practices: Engagement, representation, structuring time and activities

Engagement

- Maximize opportunities for choice and autonomy for individual students and the class as a whole.
- Reflect student interests in instructional materials and assignment choices.
- Reflect linguistic and cultural diversity in options provided for instructional materials and assignments.
- Co-create and model guidelines for respectful virtual interactions and for online discussions. Have clear expectations and consequences for when guidelines are not followed.
- Discuss digital privacy as a class. Many school boards have existing guidelines for acceptable use of technology by staff & students that can be reviewed. Some students with special needs benefit from social stories.
- Establish communication guidelines for synchronous classes.
- Create leadership opportunities for students (e.g. create and share music playlists for breaks, act as discussion leaders, pose a 'why' question to spark a class inquiry, create class committees that organize weekly events, daily physical activity, etc.)
- Make some classroom activities collaborative, where success is dependent on student contributions through a range of roles.
- Offer opportunities for formal and informal learner-learner engagement (e.g. small group collaborative projects, time for chats).
- Invite feedback regularly.

Representation

- Pair text with oral and visual information (e.g. adding closed captioning and/or transcription, adding diagrams or models for orally presented information, add voice-overs to slides, add text and/or oral descriptions for images).
 - Provide step-by-step instructions, ideally with a combination of video and text.
 - Ensure assistive technologies are easily compatible with course offerings (e.g. Google Read & Write works well with Google sheets, slides & docs).
 - Consider helpful sensory practices such as having the educator wear noise cancelling headphones with a microphone enabled, ensuring good lighting and camera placement, and spotlight the presenter for tools that have this option.
 - Make sure web content is accessible (e.g. text descriptions or captions for images or video, captions, font and colour in documents).
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Structuring time and activities

- Develop consistent class routines (e.g. start with a poll, move to large-group sharing, small group work, break).
- Develop and share consistent daily and weekly schedules for meetings, activities, and deadlines.
- Create clear and consistent tasks for each day/week/module with a checklist or other tracking structure. 'Chunk' tasks and assignments into smaller elements.
- Consider how/when outdoor activities can be encouraged or facilitated.
- Incorporate movement and/or relaxation exercises to start classes and/or during transition times. It can help to set a timer, or have students set a timer, to remind everyone to move in whatever way works for them.

Ideally, incorporate movement into the instruction and activity periods in ways that reflect the content and concepts being explored. Ensure that these options are inclusive for students (Guseynova & Manuilova, 2020).

- Create and share clear plans for student-teacher communication (e.g. medium, timeline).
- Consider participation alternatives/options (e.g. using chat function, submitting questions in advance, pre-recording oral presentations, answering poll questions, generating ideas on a shared platform, think-pair-share or small group work with reporting by group) (Catalano, 2014).
- Provide detailed expectations and evaluation criteria for all assignments. Use exemplars where appropriate.
- Monitor individual & class progress closely and provide regular feedback (Rice & Carter, 2015; Ontario Ministry of Education, 2010).
- Provide feedback in multiple ways (audio, video, written) (Basham et al., 2015; Tobin, 2014).

Successful strategies at tiers 2 and 3

Each student will have unique strengths and needs and knowing your student is the best approach. Students may benefit from a range of practices that may or may not be associated with their particular exceptionalities below. Many students without special education needs also benefit from these strategies.

A student's Individual Education Plan (IEP) may need to be adjusted for remote learning. The daily schedule that has been planned for the students' class may be a good fit for them, or it may need to be adapted and the IEP updated. Some students may benefit from having paper packages or lessons delivered so that activities or workbooks can be completed at home with the option of emailing photos of their completed work to their teachers.

Many school boards have developed ways of providing small group instruction, individual sessions with educational assistants, and/or therapeutic sessions with specialists virtual virtually. For some students with special education needs and their families, regular support from educational assistants, particularly those with whom a student has a pre-existing relationship, is crucial to their program access.

Synchronous teaching strategies

Exceptionality category	Strategies
Behavioural	<ul style="list-style-type: none"> ● Explain the day's events or schedule before class begins. Where applicable, use the announcement feature in the Learning Management System or send an email (Ontario Teacher's Federation, n.d.). ● Provide students with consistent expectations, rules and routines (Ontario Teacher's Federation, n.d.). ● Affirm and reinforce desirable behaviours (Ontario Teacher's Federation, n.d.). ● Integrate peer collaboration and small group activities that support feelings of connection, belonging and affirm meaningful contributions. ● Provide alternative participation options that do not require students to turn on their camera. ● When behavioural supports such as token-systems or behavioural contracts are regularly used, coordinate and collaborate with at-home caregivers and learning support professionals to develop adapted versions for the remote learning context (Truchlicka et al., 1998). ● Plan for breaks and social time that allow peers to interact in unstructured, playful ways (Sullivan and Cousins, 2015)

	<ul style="list-style-type: none"> ● Integrate exercise, movement, relaxation and moments for mindfulness as part of regular synchronous remote learning schedule. ● Support engagement by integrating games from time to time ● Modify screen time as needed in collaboration with students and parents (Ontario Teacher’s Federation, n.d.) ● Monitor attendance. Call parents or send a personal email or note to check in on students who are not attending.
<p>Communicational</p>	<ul style="list-style-type: none"> ● Remove all technical barriers so that pictures, signs and speech can be used. ● Use subtitles and simultaneous closed captioning (Canadian Hearing Society, 2015). ● Use gestures that support student learning and understanding. ● Model speech patterns and create opportunities for students to use these patterns during synchronous participation (University of New Brunswick, n.d.). ● Be patient when students are speaking; do not rush them (Do2Learn, n.d.). ● Focus on interactive communication and active listening (Autism Training and Technical Assistance Project, 2020). ● Integrate texts that appeal to learners ● Ensure students have ways to express wants and needs (Autism Training and Technical Assistance Project, 2020). ● Reinforce communication attempts when student is non-verbal or emerging verbal (Do2Learn, n.d.). ● Paraphrase what student has said or indicated. ● Speak clearly and with an audible tone (National Deaf Center, 2020).

	<ul style="list-style-type: none"> ● Encourage use of speech-language therapist when needed and allow them to participate in class with student(s) (Do2Learn, n.d.).
<p>Intellectual</p>	<ul style="list-style-type: none"> ● Provide instruction focused on social norms in digital spaces; model ways of interacting in the online environment (Lussier-Desrochers et al., 2017). ● Support technical skill development through modelling, 1:1 check-ins and small-group discussion (Parmigiani et al., 2020). ● Monitor and adjust pacing based on student feedback. ● Prioritise social interaction; create time for playful social time with peers in addition to regular recess breaks. ● When and as possible with at-home supervision, integrate high-interest, relevant at-home activities into instruction (e.g., baking, fixing, making with materials on hand). ● Gifted learners particularly benefit from: <ul style="list-style-type: none"> ● Development of virtual peer connections with students in other classes or schools based on shared interest ● Opportunities to spend time in higher grade classes ● Flexibility in pacing to allow for acceleration or compacting (Stargardter, 2021).
<p>Physical</p>	<ul style="list-style-type: none"> ● Invite and encourage use of assistive support professionals such as notetakers, sign-language interpreters where needed. ● Check navigability of videoconferencing platform; ask students/caregivers to identify what they need to participate fully; check in to find out what worked and didn't work. ● Use simultaneous transcription applications. ● Adjust screen time requirements in consultation with students and families.

<p>Multiple</p>	<ul style="list-style-type: none"> ● Consult with students, parents and learning support professionals to understand the student’s interests, strengths and their needs in terms of digital skills, required assistive technologies, communication needs, and physical needs in a synchronous videoconferencing environment (Lombardi, 2019). ● Offer alternate methods of participation, communication, action and representation that align with the student’s unique strengths and needs (Lombardi, 2019).
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Asynchronous teaching practices

<p>Exceptionality category</p>	<p>Strategies that remove known sensemaking barriers</p>
<p>Behavioural</p>	<ul style="list-style-type: none"> ● Be flexible with deadlines and responsive to students’ social-emotional needs. ● Use recorded video instructions that enable students to revisit expectations (Anderson & Sorenson, 2017). ● Design alternative assignments for students who are struggling with the demands of remote learning. ● Use analytics in Learning Management Systems (LMS) to monitor participation. If students are not participating, check in quickly with a personal note or telephone call. Participation is a significant predictor of success in online learning (Bae Kwon, DeBruler & Kennedy, 2019).
<p>Communicational</p>	<ul style="list-style-type: none"> ● Provide incremental opportunities for success so students are able to tackle more complex tasks over time. ● When appropriate and needed, ensure that learning materials such as adapted books, math manipulatives, picture-word

	<p>cards, augmentative and alternative communications devices, and visual schedules are provided.</p> <ul style="list-style-type: none"> ● Integrate high-interest texts. ● Check that all learning materials are Perceivable, Operable, Understandable and Robust (POUR). ● Integrate approved resources for literacy and numeracy instruction (e.g., Empower Reading; NetMath; Calcularis). ● Encourage and where needed, teach use of assistive technologies such as speech-to-text, text-to-speech, translation applications, and text summarizers that can enable students to work independently (e.g., Read & Write, WordQ, Kurzweil 3000, DeepL, Google Translate, MS Interactive Reader, Quillbot, TextCompactor) (Pierson, 2021). ● Invite the use of Voice Recordings, Video Recordings for student assignments using built-in assistive applications such as Voice Notes or smart-phone cameras (Ontario Teachers’ Federation, n.d.).
<p>Intellectual</p>	<ul style="list-style-type: none"> ● Send updates at a predictable time each week; don’t overwhelm students with too many alerts or updates. ● Where possible, use settings in the Learning Management System to manage the release of updates to students. ● Anticipate and remove navigational barriers; reduce the number of clicks needed to find, reply, participate, submit. ● Use consistent, predictable structures in the presentation of tasks. ● Prioritize organization. Use checklists, to-do lists, visual schedules, visual cues such as icons that signal organizational structure or task type (Disability Issues Canada, n.d.). ● Encourage and teach use of assistive technologies that can reduce online distractions (e.g., focus mode) and provide multimodal access to ideas (e.g., text-to-speech) (see above).

	<ul style="list-style-type: none"> ● Provide access to additional resources that enable interested students to explore high-interest topics independently. ● Introduce digital platforms that support communication, expression through multiple modes, choice and autonomy (e.g., Flipgrid, Padlet). ● Gifted learners particularly benefit from: <ul style="list-style-type: none"> ● Pacing options (curriculum compacting, acceleration) ● Ensuring enrichment opportunities are pre-established on digital platforms. ● Using discussion boards for critical/creative thinking (Potts, 2019).
Physical	<ul style="list-style-type: none"> ● Provide access to printed materials in accessible format (screen readers, Braille, large print, magnification) (Ontario Teachers' Federation, n.d.). ● Offer enlarged print versions of assignments or different size text on platform (Ontario Teachers' Federation, n.d.). ● Ensure font size and type are legible (Ontario Teachers' Federation, n.d.). ● Use alternative text for all images. ● Work with assistive technology specialists, students and families to determine alignment between assignment expectations and the assistive technologies that students are using at home.
Multiple	<ul style="list-style-type: none"> ● Monitor participation. ● Communicate quickly and regularly with the student, parents and learning support professionals to build relationships, and networks of support around the student.