Special Education Resource Guide:

A starting point for meeting the needs of exceptional learners in the classroom

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Part A: Accommodations for Specific Exceptionalities

- Physical Exceptionalities
- Deaf/Hard of Hearing
- Low Vision/Blindness
- Autism Spectrum Disorder (ASD)
- Attention Deficit Hyperactivity Disorder (ADHD)
- Learning Exceptionalities (LD)
- Giftedness

Part B: Assistive Technology

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Classroom Accommodations and Adaptations

Section A

Rationale: I have always thought, "wouldn't it be nice if I had a quick reference sheet to look at, to give me ideas about how to accommodate my classroom and teaching for specific exceptionalities?" This inspired me to create these one-page accommodation/adaptations summaries. They are no means an exhaustive guide but hopefully a helpful starting point for teachers who are trying to meet the specific needs of their learners.

Classroom Accommodations and Adaptations for Students with Physical Exceptionalities

Environmental:

- Desks that do not have attached seat
- Ensure activity tables/computer desks can accommodate wheelchairs, walkers, crutches, canes, etc.
- Designated cubby space for materials at reaching level
- Ensure classroom set-up/desk layout allows for easy movement

Classroom Materials:

- Allow students to carry backpack to hold books and supplies
- Use light weight manipulatives or materials for students with low strength
- Adaptive materials (scissors) and technology to help student
- Have a materials cup or basket on desk to hold pens, pencils, scissors, so that they don't drop on floor.
- Shorten or widen handles on paint brushes, rackets, paddles, and adapt musical instruments.
- Use a book stand or page holder for books or allow use of laptop or iPad
- Provide a school" textbook and a "home" textbook to minimize the amount of materials being brought to class

Class Schedule:

- Have classes or tasks that require more energy earlier in the day
- Allow stretch or movement breaks
- Keep classes on one floor or area as much as possible
- Have locker located as close to classes as possible
- Allow early exit from classes by a few minutes to avoid hallway 'traffic jams'

Instructional Adaptations:

- Allow students additional time to complete tests and/or negotiate the length of written assignments; allow choice in final products
- Allow use of computer or other assistive technology to complete tasks
- Use scribe paper or provide hard or electronic copy of notes, for students who cannot write
- Allow oral testing for students who struggle to write
- Pre-cut materials as necessary

Computer Adaptations:

- Use a larger mouse and enlarged keyboards; use an assistive technology mouse or keyboard that can meet the specific needs of the learner
- Use speech to text software and/or use touch screen devices

Classroom Accommodations and Adaptations for Students who are Deaf/Hard of Hearing

Environmental:

- Seat close to teacher **and** permit student to move if teaching centre moves
- Ensure you face the student and avoid covering your mouth or turning while talking
- Ensure student can easily see chalkboard/whiteboard where notes related to oral information will be displayed.
- Remain in one position as much as possible when speaking. Walking up and down in front of the class makes speech reading difficult.
- Insist on one speaker at a time and reduce general noise
- Optimum natural lighting is important. Try not to stand in front of lights or windows as they cause your face to go in shadow.
- In groups, allow students to sit in circular model so student can see all group members.

Classroom Materials:

- Provide new vocabulary or notes ahead of time or write on board or on chart paper.
- Use captioned DVDs/videos

Class Schedule:

- Provide access to watch/clock so student can monitor time and not rely on bells
- Ensure oral announcements read over the PA are provided to the student in writing
- Provide class schedule/agenda and learning goals in writing (chart paper or board).
- Signal topic changes in ways other than oral transitions.

Instructional Adaptations:

- Allow choice in final products
- Provide written copy of all information
- Try rephrasing or rewording phrases that are misunderstood, as opposed to repeating.
- Use a note taker where possible to record information. This allows the student to fully attend to the conversation. (It's impossible to speech read and take notes at the same time.)
- If there is class discussion or group work, it is useful to summarize on the board or have the groups report their work on large paper that can be read as a group.
- Use of communication facilitators such as sign language interpreters, note takers and examination clarifiers
- Arrange for written or visual tasks rather than oral ones

Computer Adaptations:

- use of adaptive technology such as audio loops or FM transmitters in lectures and tutorials, hearing aids, cochlear implants, as well as software for hearing impairment

Classroom Accommodations and Adaptations for Students with Vision Problems

Environmental:

- Seat close to teacher **and** permit student to move if teaching centre moves
- Ensure student can easily see chalkboard/whiteboard where notes related to oral information will be displayed.
- Ensure optimum natural lighting or an extra personal light is available. Ensure that areas which need to be seen are clearly visible.
- Eliminate auditory distractions
- If student is blind, ensure that instructions, including announcing entry or exit of the classroom, are done orally.
- In the case of a service dog, appropriate accommodations will need to be made.

Classroom Materials:

- Provide large print texts, audio books or Braille texts
- Avoid printing on both sides of paper
- Avoid poor quality copies (faded, light ink, smudged) or high gloss paper
- Avoid coloured ink and paper – it limits contrast and makes it harder to read
- Provide hard copies of notes that are projected or written on a chalkboard

Class Schedule:

- Provide breaks to prevent eye fatigue or headaches
- Provide large print schedule information for students' desk
- Allow extra time for transitions between classes

Instructional Adaptations:

- Allow choice in final products; negotiate length of written assignments
- Allow scribe and/or extra time for tests/exams
- Allow use of assistive technology
- Provide large print written copy of all information
- Visual aids with clear, crisp writing and imagery.
- Use a note taker where possible to record information.
- Provide a verbal explanation for visual aids (e.g., graphs, charts, diagrams) and verbally emphasize important information.

Computer Adaptations:

- Use of adaptive technology such as optical character recognition systems that scan printed material and speak the text.
- For an exceptionally wide range of assistive technology for vision problems, please see this wonderful resource: http://www.wati.org/content/supports/free/pdf/Ch12-Vision.pdf

Classroom Accommodations and Adaptations for Students with Autism Spectrum Disorder

ASD is a wide spectrum and strengths/needs vary greatly. Use this as a guide online.

Environmental:

- Desk should be in a location that is appropriate for the students' needs – some students need to be seated close to the front, some away from distractions, some away from the door or areas of high activity, some away from highly visuals areas.
- Have a quiet spot for the student to go to if he/she needs breaks; a study carrel or quiet corner.

Classroom Materials:

- Allow students to carry backpack to hold books and supplies.

Class Schedule:

- Allow early exit from classes by a few minutes to avoid hallway chaos, which can be overwhelming.
- Have a hard copy of schedule on student desk; consider using transition cards and cues to prompt transitions, which can be difficult or overwhelming and use visuals whenever possible.
- Have a visual or written checklist, where student can 'remove' or cross off tasks as they happen.
- When possible, announce in advance when changes to schedules/routine will be happening – fire drills, assemblies, visits, supply teacher, new member of class, etc.

Instructional Adaptations:

- Allow students additional time to complete tests and/or negotiate the length of written assignments; allow choice in final products.
- Allow use of computer or other assistive technology to complete tasks.
- Use scribe paper or provide hard or electronic copy of notes, for students who have poor motor skills.
- Allow oral testing for students who struggle to write or use of assistive technology, such as text to speech and speech to text for assignments and work.
- Avoid figurative language or abstract phrasing when giving key ideas and instructions.
- Use visual aids and imagery to help students visualize concepts being explained
- Allow extra processing time and assistance such as prompt sheets or memory aids.

Computer Adaptations:

- There are many assistive technologies available for students on the ASD, including but not limited to organization apps such as electronic and visual organizers, life skills apps, text-speech/speech-text software, and assistive listening systems.

Classroom Accommodations and Adaptations for Students with ADHD

Environmental:

- Desk should be in a location that is appropriate for the students' needs – seat away from distractions, away from the door or areas of high activity, away from highly visuals areas and close to the teacher. Minimize auditory and visual stimulation.
- Have a quiet spot for the student to go to if he/she needs breaks; a study carrel or quiet corner.
- Ensure organized workspace.

Classroom Materials:

- Provide area to organize materials
- Frequently check the organization of the student's notebook
- Use of headphones and/or earplugs to reduce noise

Class Schedule:

- Have a hard copy of schedule on student desk and posted, as well as classroom rules
- Have a visual or written checklist, where student can 'remove' or cross off tasks as they happen.
- Provide opportunities for time outs or breaks to allow for physical movement/activity
- Set time limits for specific task completion.

Instructional Adaptations:

- Allow students additional time to complete tests and/or negotiate the length of written assignments; allow choice in final products. Chunk assignments.
- Allow use of computer or other assistive technology to complete tasks.
- Use scribe paper or provide hard or electronic copy of notes, for students who have poor motor skills.
- Allow oral testing for students who struggle to write or use of assistive technology, such as text to speech and speech to text for assignments and work.
- Use visual aids and imagery to help students visualize.
- Allow extra processing time.
- Provide hands on learning opportunities.
- Give clear and simple directions/instructions; have student repeat back information to ensure clarity and understanding.
- Use of tracking sheets, graphic organizers, concept maps and word retrieval prompts.

Computer Adaptations:

- There are many assistive technologies available for students with ADHD, including but not limited to organization tools - electronic organizers, text-speech/speech-text software, e-books/audio books, talking keyboards, educational games.

Classroom Accommodations and Adaptations for Students with Learning Exceptionalities

Learning delays vary greatly, as do the styles and rates of learning. Use this as a guide only.

Environmental:

- Desk should be in a location that is appropriate for the students' needs – some students need to be seated close to the front, some away from distractions, some away from the door or areas of high activity, some away from highly visuals areas.
- Have a quiet spot for the student to go to if he/she needs breaks; a study carrel or quiet corner.

Classroom Materials:

- Have a specific area for the students to keep classroom materials; have highlighters, prompt cards, and key word sheets available along with other class materials.

Class Schedule:

- Have a hard copy of schedule on student desk
- Have a visual or written checklist, where student can 'remove' or cross off tasks.
- Allow breaks to avoid frustration.

Instructional Adaptations:

- Allow students additional time to complete tests and assignments and/or negotiate the length of written assignments; allow choice in final products.
- Allow use of computer or other assistive technology to complete tasks.
- Use scribe paper or provide hard or electronic copy of notes, for students who have poor motor skills.
- Allow oral testing for students who struggle to write or use of assistive technology, such as text to speech and speech to text for assignments and work.
- Accommodate tests accordingly; fewer repetitive test questions and/or choice in number of questions completed.
- Use visual aids and imagery to help students visualize concepts being explained or multi-sensory aids.
- Allow extra processing time and/or allow supplemental aids created by the student for tests/exams (such as prompt sheets or memory aids)
- Provide assistance with organization of notebook and study/school work schedule

Computer Adaptations:

- There are many assistive technologies available, including but not limited to organization apps such as electronic and visual organizers, language apps (eBooks, pocket phonics, spelling city, Bluster), Mathematics apps (splash math, Freddy Fraction, electronic calculators) and text-speech/speech-text software.

Classroom Accommodations and Adaptations for Students with Giftedness

Adapting course content for gifted learners by Differentiated Learning:
Content, Process and Product.

Content:

- Provide options and alternatives to learning key content – more opportunities for research or extended learning on key concepts
- Use multiple entry points to allow students to begin at questions and concepts that challenge them.
- Allow students to choose a specific area of interest
- Provide more opportunities for higher order thinking and/or application of concepts.
- Make activities more complex by adding more variables or possibilities for outcomes

Process:

- Use diagnostic assessments to determine what the student already knows and allow him/her to work on more challenging content.
- Regularly formatively assess to ensure the student is being challenged.
- Use Bloom's taxonomy to provide more opportunities at the higher end of the taxonomy.
- Decrease the amount of repetitive questioning and allow student to work ahead at his/her own pace.
- Allow opportunities to link classroom learning to real-world context and for student to provide evidence of application to real world skills.
- Allow more opportunities for inductive and deductive thinking, through research or questioning.
- Encourage effective use of technology in learning processes, to enhance learning experience.
- Allow opportunities for individualized study and research; encourage research using primary materials, when appropriate and available.
- Consider grouping like-ability students in groups for group work.
- Allow extra-curricular enrichment opportunities (i.e.: enrichment courses, workshops, Math/Science contests, writing (History/English) contests, etc).
- Co-construct criteria for assignments with the student to allow greater opportunity for input and use of critical thinking skills.

Product:

- Provide choice in final products; consider using a choice board and/or portfolio/digital portfolio to allow the student to represent his/her learning.
- Create built-in opportunities for assessment as learning – focusing on self reflection and assessment of content and process stages, as well as outcome.
- Provide final tasks that allow the student to teach his/her peers
- Provide opportunities for use of technology, both in final products and throughout the learning experience.

Assistive Technology:
A Quick Look

Section B

Rationale: There are hundreds of assistive technology devices, tools, programs and apps available. I have included an easy, one page look at assistive technology, including some of the key areas of assistance and a few apps that meet these needs, for beginners. I've also provided two links to a multitude of other apps, for those who are comfortable with assistive technology and looking to branch out!

<center>**Assistive Technology – where do I start?**</center>

Assistive technology products are designed to provide "additional accessibility to individuals who have physical or cognitive difficulties, impairments, and disabilities". These can include computer hardware and software, electronic devices, web based programs or many tools which are now available as applications (apps) for various devices or tools that are now available on the Internet. Many of these online tools (and apps) can be used with minimal (0.99) or no charge.

- Accessibility Apps (iHear dialer, Sound Amp, Touch Mouse)
- Alternative/Augmentative Communication (iTalk, Look2Learn, My Pictures Talk, iSign)
- Alternative Calculators or Keyboards (including on screen keyboards)
- Audio Books (Podcasts, E-Books)
- Digital Recorders (Echo SmartPen, Audio Boo)
- Electronic Text (Bookshare)
- Electronic Math Games/Tools (MathPad, Mathboard, Math Drills, PopMath)
- Graphic organizers and outlining (Inspiration, Lucid Chart)
- Note taking (SoundNote)
- Optical character recognition (OCR for scanning, Zoom Reader)
- Organizational Tools (iThoughts, iPrompts, AudioNote, FirstThen, iResponse, Picture Scheduler, Visules)
- Portable Word Processors (N eo)
- Scanners (CamScanner)
- Speech-to-Text Programs (Dragon Naturally Speaking, WordQ)
- Spell checkers (portable or built in)
- Text-to-Speech (REACH, Verbally, Predictable, EZSpeech)
- Touch Screens
- Voice recognition (Talk Typer)
- Word-prediction programs (Co-Writer)
- Writing Preparation (Idea Sketch, MindNode, Story Builder)

Why AT?

- Assistive Technology benefits students with exceptionalities because it acts as a "great equalizer for individuals with disabilities that might prevent full participation in school, work, and the community As Edutopia explains: "Technology is providing more powerful and efficient tools to teachers who work with children with disabilities. These tools enable teachers to offer new and more effective means of learning while individualizing instruction to the broad range of student learning needs. Educators are using computers as tools to deliver and facilitate learning beyond drill and practice, to provide environments that accommodate learning, and to ensure enhanced and equitable learning environments to all students."

34 Assistive Technology Apps to get you started:
http://www.teachthought.com/technology/34-assistive-technology-apps-from-edshelf/

200 Special Education Apps:
http://www.educatorstechnology.com/2012/10/top-200-special-education-apps.html?spref=tw

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Resources
Section C

Rationale: This section contains the websites and articles that I used to helped me compile this guide. These websites will give you a more in depth look into differentiated instruction, strategies for exceptional learners and assistive technology.

Differentiated Instruction:

A variety of strategies:

http://web.njcu.edu/programs/mjwc/Uploads/instructional_techniques.pdf
http://www.learnalberta.ca/content/kes/pdf/or_ws_tea_elem_02_diffinst.pdf

KWL:

 http://differentiationforall.blogspot.ca/p/fqr-factsquestionsresponse-think-sheets.html
http://olc.spsd.sk.ca/DE/PD/instr/strats/kwl/

EXAMPLES:

Elementary: http://www.sccs.swarthmore.edu/users/09/smuzio1/kwl8.JPG
Secondary: http://sitemaker.umich.edu/kathrynrolph/files/kwl_002.jpg

Gallery Walks/Graffiti:

http://www.teachingintheearlyyears.com/2012/09/using-gallery-walks-in-classroom.html
http://www.cscope.us/docs/newsletters/1011/cscope_newsletter10-11_1stSixWeeks.pdf

EXAMPLE: http://rothinks.files.wordpress.com/2011/02/picture11.png?w=1000&h=

Exit Cards:

http://www.tvdsb.ca/webpages/msurti/files/tvdsb%20-%20exit%20cards.pdf
https://www.teachingchannel.org/videos/student-daily-assessment
http://www.readwritethink.org/professional-development/strategy-guides/exit-slips-30760.html

EXAMPLES: http://charlottespeilman.com/wp-content/uploads/2012/09/ExitCard-examples.jpg
http://pinterest.com/kmcevoy5/exit-cards/

Vocabulary Building Charts/Word Walls:

http://www.enchantedlearning.com/graphicorganizers/vocab/
http://www.edu.gov.on.ca/eng/studentsuccess/thinkliteracy/files/thinklitwordwalls.pdf
http://www.k12reader.com/10-great-word-wall-strategies-for-classrooms/

EXAMPLES:

Elementary: http://ows.edb.utexas.edu/sites/default/files/users/cdisney/IMG_0087_1.JPG
Secondary: http://mrmayo.org/images/10.17.07.1.jpg

Graphic Organizers:

http://www.thinkport.org/technology/template.tp
http://olc.spsd.sk.ca/DE/PD/instr/strats/graphicorganizers/

EXAMPLES:

Elementary:
http://www.lle.rcs.k12.tn.us/Teachers/farmerel/Images/AnchorCharts/MakingPredictions.JPG
http://media-cache-ec4.pinimg.com/736x/36/5a/17/365a17044c5b8d8a5f32d9f952db7893.jpg

Secondary:
http://media-cache-ec2.pinimg.com/736x/09/7d/65/097d653183ee2f7a00c34080cf808c43.jpg

Accommodations/Adaptations for Exceptional Learners:

Blind/Low Vision:

http://library.queensu.ca/websrs/faculty_guide-Strategies-Blind.html
http://www.education.gov.sk.ca/Vision
http://www.wati.org/content/supports/free/pdf/Ch12-Vision.pdf
http://www.pathstoliteracy.org/sites/default/files/uploaded-
files/Effective%20Classroom%20Adaptations_CEC_2001.pdf

Hearing Impairments:

http://www.usd.edu/medical-school/center-for-disabilities/upload/HI-Class-Accommodations.pdf
http://successforkidswithhearingloss.com/impact-on-listening-and-learning/accommodations

Learning Exceptionalities:

http://www.ldat.org/ld_info/accommodations.html
http://education.alberta.ca/media/313509/calm_ch7.pdf
http://www.ldanatl.org/aboutld/teachers/understanding/accommodations.asp

ADHD:

http://www.attentiondeficit-info.com/pdf/classroom-accommodations-students-adhd.pdf
http://www.caddac.ca/cms/page.php?57

Giftedness:

http://professionallyspeaking.oct.ca/march_2012/features/teaching_the_gifted.aspx
http://www.gnb.ca/0000/publications/ss/gifted%20and%20talented%20students%20a%20resource%20guide%20for%20teachers.pdf
http://education.alberta.ca/media/631915/giftedtalented.pdf

ASD:

http://www.education.gov.sk.ca/asd
http://education.alberta.ca/media/511995/autism.pdf
http://www.autismsocietycanada.ca/DocsAndMedia/KeyReports/Ont_Effective_ed_practices_ASD_2007_01.pdf
http://www.canadianteachermagazine.com/ctm_special_needs/spring07_accommodations_in_the_classroom.shtml

Physical Exceptionalities:

http://www.gnb.ca/hrc-cdp/e/pamphlet-Accommodating-Students-with-a-Disability.pdf
http://education.gsu.edu/physicaldis/classroom_adaptations_checklist.htm

Assistive Technology:

http://www.edutopia.org/assistive-technology-young-children-special-education
http://www.teachthought.com/technology/34-assistive-technology-apps-from-edshelf/
http://www.educatorstechnology.com/2012/10/top-200-special-education-apps.html?spref=tw
http://www.tdsb.on.ca/_site/ViewItem.asp?siteid=10428&menuid=28290&pageid=24322
http://www.bravekids.org/resources/assistive-technology/getting-started-with-assistive-technology/
http://www.parentseducationnetwork.org/Resources/documents/EdRev2012Handout_Tuber.pdf