

Best Practices

Assessment Guidelines

For the Intermediate Classroom Teacher
With a Student Who Has a Visual Impairment and

Reads Braille

2010

A Resource Project by the Provincial Resource Centre for the Visually Impaired (PRCVI)

PRCVI is a Ministry of Education Provincial Resource Program

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Mission Statement

Students with visual impairments have unique needs and challenges when demonstrating subject knowledge through tests. Responsibility for assessments lies with the classroom teacher. With appropriate accommodations students with visual impairments are able to accurately demonstrate their knowledge and skills. Most test questions can be formulated or adapted to minimize the need to acquire and process visual information.

The following guidelines have been developed to assist classroom teachers in making assessment accommodations to both informal and formal tests without compromising integrity, reliability or validity. A Teacher of Students with Visual Impairments should be consulted during the development of test items.

Many of the following suggested guidelines may be beneficial to all students.

Braille Format

Provide a copy of the exam to the transcribers as far in advance as possible. A minimum of one week is required for preparing, reviewing and proof reading a braille exam. Braille transcribers may need additional lead time to prepare exams depending on complexity and length. Graphs, charts and tactile diagrams are time consuming to prepare.

Test Administration

- Students with visual impairments should be expected to demonstrate competency in the same learning outcomes as their peers.
- Extra time may be required (often 3 or 4 times above what is required for a sighted student).
- Longer exams may need to be divided into sections to allow for them to be taken over a period of time or even days, with breaks during each sitting.
- A separate setting with qualified supervision must be available.
- Oral clarification of test questions should be provided to the student by a supervisor, if needed.
- Provision must be made for students to respond to test items using the equipment or materials best suited and familiar to them.
- Students with visual impairments should be active participants in lab tests and/or paired with a sighted partner when necessary.

Formulation of Test Questions

- Questions that contain complex visual information should be reviewed. Adaptations may be made or questions may be replaced as long as mastery of learning outcomes is demonstrated.
- Tactile tables, diagrams and graphs are difficult and time consuming to interpret and process. Students must have previous experience and familiarity with the layout of tactile graphics and 3-D models presented on an exam.
- 3-D models or real objects may be necessary to substitute for some diagrams.

Maps

Redesign the question to include map information.

Instead of this

Use the map to answer the following question.



From which two European countries did the majority of Canadian settlers come from?

_____ and _____

Try Doing It This Way

In which pair of European countries did the majority of Canadian settlers come from?

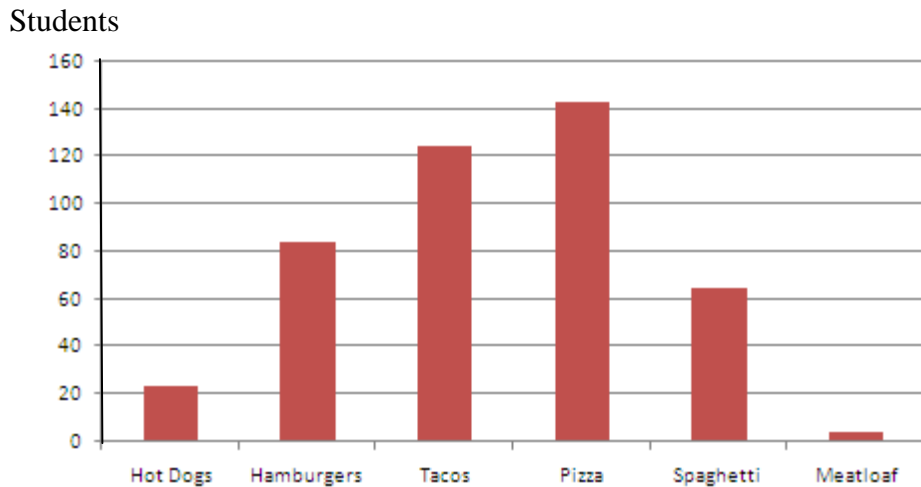
- A. Great Britain and France
- B. Austria and Italy
- C. Belgium and France
- D. Belgium and Germany

Graphs

Redesign the question to include graph information.

Instead of This

Favourite Cafeteria Food



What is the favourite cafeteria food in this school?

- A. Hot Dogs
- B. Tacos
- C. Pizza
- D. Spaghetti
- E. Hamburgers
- F. Meatloaf

Try Doing It This Way

What is the favourite cafeteria food eaten in this school?

- A. 125 students ordered Tacos
- B. 143 students ordered Pizza
- C. 24 students ordered Hot Dogs
- D. 65 students ordered Spaghetti
- E. 05 students ordered Meatloaf
- F. 83 students ordered Hamburgers

Matching Columns

Redesign the question to include column information.

Instead of This

Match each item in Column 1 with those in Column 2

Column 1

1. dogs
2. rocks
3. trees
4. house

Column 2

- a. plant
- b. animal
- c. mineral
- d. building

Try Doing It This Way

A dog is an example of a

- a. plant,
- b. animal
- c. mineral
- d. building

A tree is classified as being?

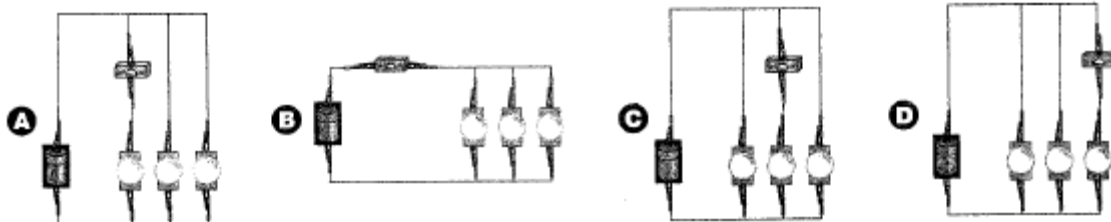
- a. plant
- b. animal
- c. mineral
- d. other

Diagrams and Pictures Example 1

Redesign the question to reduce the amount of visual information represented by tactile graphics.

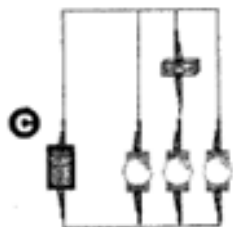
Instead of This

Examine the four circuit diagrams. Each diagram shows three light bulbs connected in parallel. Each circuit has a switch in a different location. In which circuit would the switch be able to turn on or turn off all of the light bulbs at the same time? Explain.



Try Doing It This Way

Examine the circuit diagram. Would the switch be able to turn on or turn off all of the light bulbs at the same time? Explain.

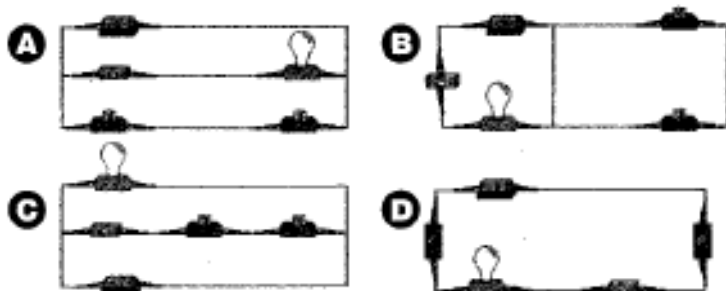


Diagrams and Pictures Example 2

Instead of This

The following diagrams show four different circuits in which two buzzers, a lamp, and a switch are connected to a battery.

Which illustration shows a series circuit?



Try Doing It This Way

The following circuit shows two buzzers, a lamp, and a switch connected to a battery.



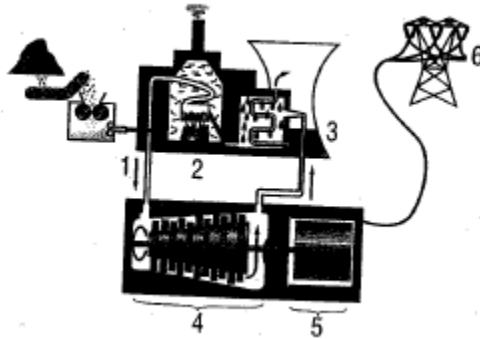
What type of electrical circuit does the diagram illustrate?

- A. parallel circuit
- B. voltage circuit
- C. series circuit
- D. none of the above

Diagrams and Pictures Example 3

Instead of This

Use the diagram to answer the following question.



The diagram illustrates the parts of a coal-fired power station. Match the component of the power station to the correct letter in the diagram.

- A. Steam turbine
- B. Cooling water
- C. Combustion chamber
- D. Generator
- E. Superheated steam
- F. Transmission lines

Try Doing It This Way

The purpose of transmission lines is to do what?

- A. Carry electricity to the power station from customers.
- B. Carry electricity away from the power station to customers.
- C. Provide a place for birds to rest on.
- D. Carry steam away from the power station to customers.
- E. Carry radio signals from the power station to customers
- F. None of the above.

Or this way

The part of a coal-fired power station that delivers electricity is called _____?

Tables and Charts

Redesign the question to include table information.

Instead of This

Use the following data to answer the questions below.

Planet Name	Diameter (km)	Maximum Distance from Sun (millions of km)	Average Surface Temperature (°C)	Length of Year (in Earth units)
Mercury	4880	70	-170 to 350	88 days
Venus	12 100	109	480	225 days
Earth	12 756	152	22	365 days
Mars	6787	249	-23	687 days
Jupiter	142 800	816	-150	12 years
Saturn	120 000	1507	-180	30 years
Uranus	51 800	3004	-210	84 years
Neptune	49 500	4537	-220	165 years
Pluto	3000	7375	-230	248 years

Which planet is the:

- a) largest? b) coldest?

Try Doing It This Way

Which one of the following planets is the largest?

- A. Uranus 51, 800
- B. Saturn 120, 000
- C. Neptune 49, 500
- D. Jupiter 142, 800
- E. Mars 6787
- F. Pluto 3000
- G. Earth 12, 756

Which planet is the coldest?

- A. Saturn -180 degrees
- B. Pluto -230 degrees
- C. Neptune -220 degrees
- D. Mercury -170 – 350 degrees
- E. Mars -23 degrees
- F. Jupiter - 150 degrees
- G. Uranus - -210 degrees

Photographs

Use “photo description” to replace a photograph.

Instead of This

Explain the importance of water safety when fishing.



Explain the rules of water safety when fishing. What safety rules are not being following by the boy in the photograph.

Try Doing It This Way

Description of Photograph:

A happy young boy is standing in a boat holding a 30cm fish. He is wearing a long sleeve tee shirt and shorts.

Explain the rules of water safety when fishing. What safety rules are not being followed by the boy.

Cartoons and Complex Diagrams

This is an example of a question that cannot be easily transcribed into braille. It is extremely difficult to fully describe all information that is needed, including nuances illustrated, without jeopardizing the validity of the question. The length of the description can become unwieldy.

Instead of This

Use the cartoon to answer the following question



Cartoon taken from the internet attributed to www.usaweekend.com artist - Casey Shaw

What would you say the child is trying to do?

- A. making excuses
- B. justify the results
- C. blame it on someone else
- D. all of the above

Try Doing It This Way

In the cartoon a young boy is showing, what appears to be his father, a report card. On the report card in a large red letter is "F". The caption reads "I blame it on intelligence failures".

What would you say the child is trying to do?

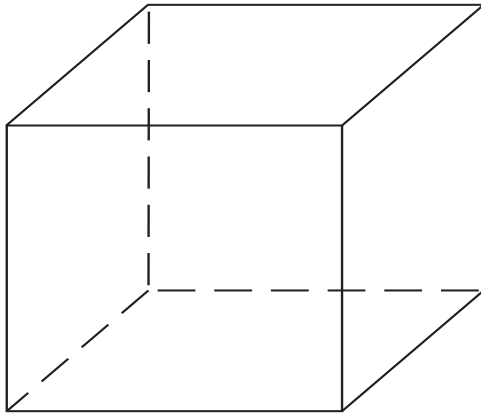
- A. make excuses
- B. justify the results
- C. blame it on someone else
- D. all of the above

3-D Models Example 1

3-D Models may be required (perspective is very difficult for a student who is blind to interpret)

Instead of This

How many edges are on the diagram?



- A. 6
- B. 8
- C. 9
- D. 12

Try Doing It This Way

Use a real 3-D Model (In this case a cube)

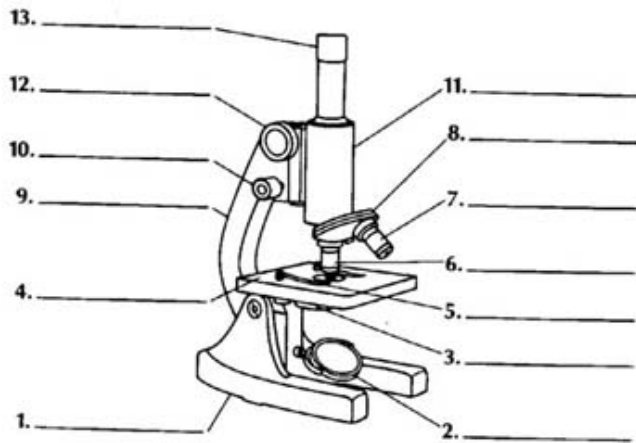
How many edges are on a cube?

- A. 6
- B. 8
- C. 9
- D. 12

3-D models *Example 2*

Attach braille labels onto the actual microscope. The student answers on a separate sheet of paper

Instead of This



Try Doing It This Way



References:

- BC Ministry of Education Released Provincial Exams
- Classroom Teacher created exams and assessments
- Allman, C. (2004). Making Tests Accessible for Students with Visual Impairments: A Guide for Test Publishers, Test Developers, and State Assessment Personnel. (2nd Edition). Louisville, KY: American Printing House for the Blind, Available from <http://www.aph.org>.