

ANSWER KEY: Efficient Reading: Dislocations
Skill Builders: Key Words & Phrases, Skimming, Scanning

Answers to the questions will vary according to the interests and any previous knowledge of the individuals reading the texts.

There are 5 activities designed to improve efficient reading. The topics are:

- Dislocations
- Build a Drone
- Solar Power
- Sports Story
- White Fang (fiction)

Instructors are encouraged to use their own authentic documents to replicate the activity and provide additional practice. Consider trade journals, magazines, and your local newspaper in print and online format.

ANSWER KEY: Efficient Reading: Building a Drone
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ANSWER KEY: Efficient Reading: Solar Power
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ANSWER KEY: Efficient Reading: Sports Story
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ANSWER KEY: Efficient Reading: : White Fang (Fiction)
Skill Builders: Key Words & Phrases, Skimming, Scanning

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There are 5 activities designed to improve efficient reading. The topics are:

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ANSWER KEY: Changes in the Electrical Code

Skill Builders: Key Words & Phrases, Skimming, Scanning

1. What do each of the following acronyms stand for?
 - a) EVSE: **electric vehicle supply equipment**
 - b) GFCI: **ground fault circuit interrupter**
 - c) LED: **light emitting diode**
 - d) TR: **tamper resistant**

2. What does the term “wet areas” refer to?
The area in the vicinity of sinks, showers or tubs

3. What voltage LEDs are affected by the 2018 change?
LEDs that are more than 150 V

4. What new rules and subrules also refer to the provision of power related to electric vehicles?
Rule 8-500 and Subrules 8-106(11) and (12)

5. When was the previous version to the 2018 Code published? Assuming the same number of years between revisions, when will the next version be published? **Previous was 2015. Next will be 2021. Every 3 years.**

6. Changes to the Code typically reflect changes in consumer behaviour and expectations. Select 2 of the changes and in your own words describe why you think the changes were made. **Answers will vary but must be logical. Possible answers include the following.**
 1. Disconnecting means for LED luminaires
Expanded use and available variety of LEDs mean they’ve become the new standard for consumers and are much more common.

 2. Tamper resistant (TR) receptacles
Modern approaches to parenting means small children are present in more types of spaces rather than kept at home. Hotels and schools may also be concerned about liability if there is an accident.

 3. Increased GFCI protection for wet areas
Bathrooms have become much larger as consumers want a spa experience at home. Things like heated floors mean greater demand on the electrical system.

 4. Electric vehicle energy management system
EVs are becoming a more affordable reality for consumers and more want to be able to charge them without extensive changes to residential electrical system. This must be balanced with safety.

ANSWER KEY: Demand for Skilled Trades
Skill Builders: Key Words & Phrases, Skimming, Scanning

1. **Before** reading the article, and just from looking at the title, list 3 topics you expect to find mentioned in the article. **Answers will vary, but could include: how many unfilled skilled trades jobs there are in Canada; reasons why the skilled trades can't find enough workers; which skilled trades have the most trouble finding workers.**
2. Who authored the report referred to? **ManpowerGroup Canada**
3. How many employers participated in the survey? **Nearly 2000**
4. According to the article, what is a large organization? **250-plus employees**
5. A "gap" is the distance between 2 things or sides. What are the 2 sides of the skillsgap? **Gap is between skills job seekers have and skills employers need.**
6. Articles often use a lot of "jargon" or words that are specific to the topic being discussed. In your own words, write a definition for each of the following jargon words used in the human resources sector: **Answers will vary. Suggestions include:**
 - a) Boomerang retirees: **people coming back to work after retiring**
 - b) Upskilling: **getting more training in same occupation**
 - c) Reskilling: **getting training in a new occupation**
 - d) Learning platform: **way to get online training**
 - e) Adjacent skills: **skills that can be transferred to new occupation**
 - f) Skilled trade: **occupations that require post-secondary**
7. Complete the following table.

%	Of employers...
28%	... are changing their existing work models
41%	... can't find skilled people they need
68%	... are investing in learning platforms
58%	... in large organizations report talent shortages
56%	... are looking at different talent pools

8. Identify 2 things that employers are doing to attract new employees. **Any 2 of offering upskilling, offering reskilling, offering online learning, changing work models, offering flexible work options.**
9. The article focuses on what employers can do to fill jobs. What is an example of something a worker can do? **Answers will vary.**
10. Now that you've read the article, look back at your prediction in Question 1. Did your predictions match the content of the article? What do you think would be a different good title for the article? **Answers will vary.**

ANSWER KEY: Finding Information in Codes: Building
Skill Builders: Key Words & Phrases, Skimming, Scanning, Navigating Regulations

- Using the following structure, complete the table below using the information in the excerpt. Locate and use the first example that allows you to complete every line in the structure. The first line is done for you.

Division	B: Acceptable Solutions
Part	3: fire protection, occupant safety and accessibility
Section	3.8 building requirements for persons with disabilities
Sub-section	3.8.2 classification requirements
Article	3.8.2.1 application and exemptions
Sentence	3.8.2.1 (2) This section does not apply to...
Clause	3.8.2.1 (2) (a) the storey next above or below...
Subclause	3.8.2.1 (2) (a) (i) is less than 600 m ² in floor area

- What are the 3 main categories of information sub-section 3.8.2?
**Application and Exemptions Design
Requirements Specific
Requirements**
- Angles brackets < > are used to indicate changes between the current and previous versions of the Code. How many changes are indicated in 3.8.2.1 and what do they refer to?
**One set of brackets,
three types of changes
All are rules around exempt buildings**
- What is the rule number that governs openings through firewalls?
3.8.1.2
- Under what circumstances must at least 1 universal toilet room be provided?
where the *occupant load of the building or occupancy exceeds 150*
- What size units does subsection 3.8.2 apply to?
**more than 600 m² in *floor area* to the story next above or below accessible storey
Group E shops and stores with a total retail floor space of more than 50 m²**
- Where can you find more information on Group C apartment buildings?
Article 3.8.2.27.,
- How many specific requirements are identified in 3.8.2.3(1)?
5

9. What 2 parking options are permitted? Provide the full rule number where you found the answer.

a) access from the street to at least one main entrance conforming to Article 3.8.3.5.,

b) where off-street parking is provided for *persons with disabilities*, **<access> from the parking area to an entrance conforming to Article 3.8.3.5. **<that>** serves the parking area unless the entrance in Clause (a) is located so as to conveniently serve both the parking area and the *street*,**

3.8.2.3.1(a) and (b)

10. Does this excerpt from the building code apply to new construction only? Provide the full rule number where you found the answer.

NO

3.8.1.1.3

3) Access shall be provided to alterations, additions and changes in occupancy to the extent required in Subsection 3.8.4.

ANSWER KEY: Finding Information in the Codes: Electrical

Skill Builders: Key Words & Phrases, Skimming, Scanning, Navigating Regulations

1. What are the 4 main categories of information in Section 86?
Scope, General, Equipment, Control and protection
2. What are the rule and/or subrule numbers of information that is new in this version of the Code?
86-100 (EVSE information) and 86-300 (2)
3. Complete the rule number for control and protection: 86- 300
4. Complete the rule number for voltages: 86-102
5. Complete the rule number for connected loads: 86-302
6. What information must be included on warning signs?
That the equipment must not be operated without sufficient ventilation as recommended by the manufacturer's installation instructions.
7. What vehicle types are not covered by Section 86?
Off-road electric vehicles
8. What is the maximum voltage for vehicles covered under Section 86? **750 V**
9. Where can you find more information on branch circuits? **Appendix D**
10. What 3 conditions must be met for the vehicle supply equipment to be considered to have a separate disconnecting?
That the disconnecting is 1) on the supply side of the point of connection, 2) located within sight of and accessible to the EVSE, and 3) capable of being locked in the open position.
11. What are 3 sources of electrical current to vehicle motors?
Fuel cell, photovoltaic array, rechargeable energy storage system (such as a battery or capacitor)
12. Where can you find more information on the max connected load? **Rule 8-104**
13. What provision must be made for a charging receptacle installed outside?
That it shall be protected with a GFCI of the Class A type.
14. When is it permissible to supply equipment from a branch circuit that is supplying another load as well? Provide the full rule number where you found the answer. **Provided that an EVEM system is installed in accordance with Subrule 8-106 (11) or (12). Answer found in 86-300 (2).**

ANSWER KEY: Finding Information in Codes: Plumbing

Skill Builders: Key Words & Phrases, Skimming, Scanning, Navigating Regulations

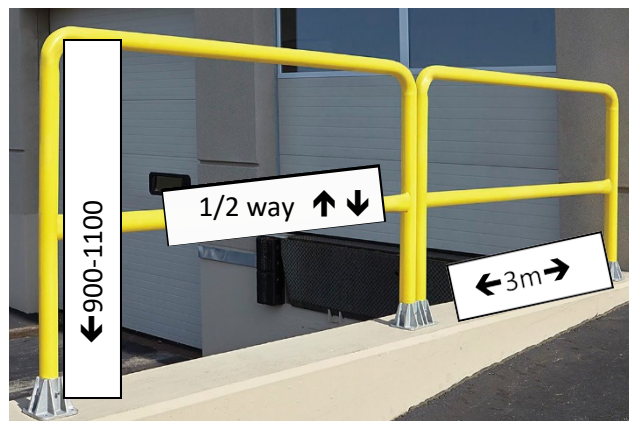
- Using the following structure, complete the table below using the information in the excerpt. Locate and use the first example that allows you to complete every line in the structure. The first line is done for you.

Division	B: Acceptable Solutions
Part	2 Plumbing Systems
Section	2.5 Venting Systems
Sub-section	2.5.1 Venting for Traps
Article	2.5.1.1. Venting for Traps
Sentence	2.5.1.1 (4) A trap need not be protected by a vent pipe
Clause	2.5.1.1 (4) (a) where it serves
Subclause	2.5.1.1 (4) (a) (i) a subsoil drainage pipe, or

- What are the 3 main categories of information in section 2.5? **Venting for traps, wet venting, circuit venting.**
- Angles brackets < > are used to indicate changes between the current and previous versions of the Code. How many changes are indicated in 2.5.2 and what do they refer to? **One change. Refers to the hydraulic load of separately vented fixtures.**
- What is the full rule number that governs outlet pipes of less than 2 inches? **2.5.3.1(2)**
- Under what circumstances does a trap not need to be protected by a vent pipe? **When it serves a subsoil drainage pipe OR a storm drainage system, OR where it is part of an indirect drainage system.**
- What size offset is permitted for pipes larger than 2 inches? **Less than 2.5 m**
- Where can you find more information on additional protections for drainage systems? **Subsection 2.5.4**
- How many clauses are identified in 2.5.2.1? **11 (a through k)**
- What is the maximum number of fixtures that can be connected to a combined relief and circuit vent? Provide the full rule number where you found the answer. **Eight. 2.5.3.1(4)**
- What 3 rules refer to emergency floor drains? **2.5.2.1(1) (e), 2.5.2.1 (1) (j) and 2.5.1.1. (3) (While the last does not contain the word "emergency" it is referenced in the previous 2 and therefore must be considered.)**

ANSWER KEY: Occupational Health and Safety Regulations
Skill Builders: Key Words & Phrases, Navigating Regulations

1. What is the title of section 2.3? **Doors**
2. In your own words, what is section 2.3 about? **Answers will vary. Suggested answer: Rules that govern how all doors (including gates) should be installed and how they will function, as well as any signage that needs to be posted near doors.**
3. Who is this regulation written for? **Anyone responsible for planning or installing doors, such as construction workers and architects, as well as workers responsible for ongoing safety in and around doors.**
4. As a result of section 2.3 (1), what is the appearance of most public swinging doors? **They are see-through.**
5. If a gate or door opens into a hallway, what document would tell you how wide the hallway needs to be? **The National Building Code.**
6. Underline 3 terms that you think should be defined in the *Interpretations* section at the beginning of Part II. Google the definition for each and write them below. **Answers will vary.**
7. How is section 2.12 formatted to make it easier to read?
Answers will vary but may include: Information is broken into small "chunks". The topic of each chunk is indicated at the start of each. Uses numbered and ordered lists and bold font used to highlight numbers and letters.
8. How far apart do supporting posts need to be spaced? **A maximum of 3 metres apart (measured from the centre of each post)**
9. How tall should the guardrail be? **Answer: Between 900 – 1100 mm**
10. Label the picture consistent with parts a), b) and c) of 2.12 (1). **Suggestion answer below.**



ANSWER KEY: Heat Stress Safety Bulletin Skill
 Builders: Key Words & Phrases, Skimming, Scanning

1. In your own words, what causes heat stress? **Answers will vary but should include reference to the fact that heat stress happens when the body is unable to cool itself.**
2. What types of heat-related illnesses do not usually require medical attention?
Heat rash and heat cramps (if treated as suggested).
3. In what cases can heat stress cause death? **Untreated heat exhaustion and heat stroke.**
4. Heat **stress** happens when the body loses too much water. Heat **rash** may appear on the body. Heat **cramps** are felt in the body. One sign of heat **exhaustion** is nausea. The most serious heat-related **illness** is heat **stroke**.
5. Changes in heart rate can indicate heat stress. What could the following indicate?
 - a. Fast heart rate: **heat stroke**
 - b. Slow heart rate: **fainting**
6. Whose responsibility are each of the following? Put an X in the column.

Prevention Tip	Workers	Managers
1. Wear light fitting clothing	X	
2. Schedule hot jobs in morning		X
3. Avoid coffee	X	
4. Monitor personal health	X	
5. Provide breaks		X
6. Drink water	X	

7. Taylor has been working outside all summer. Last night, several of the crew went out for beers after work. This morning Taylor has had a couple of iced-coffee to stay cool and alert but now suddenly feels cramping in both legs.
 - a. What do you think the problem is? **Heat cramps**
 - b. What are 2 things that can be done to treat the problem?
Any 2 of rest in a cool place, remove or loosen clothing, drink cool water or a sports drink containing electrolytes, stretch and massage muscles.
 - c. What are 2 things Taylor could have done to prevent the problem?
Avoid drinking alcohol the night before. Avoid coffee.

ANSWER KEY: Lockout Procedure
Skill Builders: Key Words & Phrases, Skimming, Scanning

1. Who is the intended audience for SAMPLE 1? **All employees.**
2. Who is the intended audience for SAMPLE 3? **Workers performing maintenance or related work assignments on the Cutoff Knife Drive.**
3. Where in the workplace would you expect to find each document? In what way(s) does that influence how the document is written? **Sample 1: in a safety manual. Sample 3: displayed by the Cutoff Knife Drive. General information in a safety manual can be more detailed and include the background and rationale for the procedure. Information located beside a specific machine should only refer to the procedure for that machine so workers can complete the procedure quickly and efficiently.**
4. SAMPLE 1 has 7 sub-headings. Divide them into the following 3 sections. Write the step numbers in the spaces:
 - a. General Information: **1, 2, 3**
 - b. Procedure: **4, 5**
 - c. Additional Information: **6, 7**
5. SAMPLE 3 has 2 main sections. What sub-heading would you assign to each section?
1. Hazard and Lockout Assessment 2. Procedure.
6. Sometimes steps in instructions have sub-steps or multiple parts.
 - a. What are the 2 sub-steps in SAMPLE 1 sequence step 6? **1. Check that no personnel are exposed, 2. Operate the push button (or other normal operating control)**
 - b. What are the 2 sub-steps in SAMPLE 3 step 3? **1. Lock and tag the equipment. 2. Test the equipment at the Knife control panel.**
7. What is being locked-out in each document? **SAMPLE 1: Any energy source (electrical, mechanical or others). SAMPLE 3: Cutoff Knife Drive.**
8. Why is some of the information in Sample 3 written in capital letters? **It is a safety warning.**
9. Which document do you think is easier to read? What could you do to make the less-readable document easier to understand? **Answers will vary. Possible suggestions are: add /number sub-headings, use colour, add diagrams, edit text so instructions are shorter, etc.**

ANSWER KEY: Navigating Codes

Skill Builders: Key Words & Phrases, Skimming, Scanning, Navigating Regulations

1. In what Part of the Code will you find information on the following?
 - a) Transmission circuit safety: **Part III**
 - b) Standards that cover all electrical installations: **Part I**
 - c) Residential inspections: **Part VI**
 - d) Objective-based standards: **Part IV**

2. Why are there no sections 11 or 13 in the Code Book?
Eleven and 13 are odd numbers and there are no odd numbers to allow for further expansion of rules as odd numbers.

3. How are changes from the previous versions of the Code indicated?
With the delta symbol Δ

4. Complete the following table.

00-000	Rule
(1)	Subrule
(a)	Item
(i)	Item
(A)	Item

5. Use the excerpt from the Code to answer the following.
 - a) In what section is this rule? **Section 12**
 - b) How many subrules are there? **3**
 - c) Which subrule contains items? **Subrule 1**
 - d) Where can you find more information? **Appendices B and G**
 - e) Which subrule overrides subrule 1)? **Subrule 3**
 - f) Which subrule is a change from the previous version? **Subrule 1**

12-510 Running of cable between boxes and fittings (see Appendices B and G)

Δ 1) Where the cable is run between boxes and fittings, it shall be supported by straps, Type 2S or 21S cable ties, or other devices located

- a) within 300 mm of every box or fitting; and
- b) at intervals of not more than 1.5 m throughout the run.

2) Cables run through holes in joists or studs shall be considered to be supported.

3) Notwithstanding Subrules 1) and 2), where the cable is run as concealed wiring such that it is impracticable to support it, and where metal sheeting or cladding, metal joists, metal top or bottom plates, or metal studs are not used, the cable shall be permitted to be fished and need not be supported between boxes and fittings.

ANSWER KEY: Project Schedule Emails
Skill Builder: Key Words & Phrases, Skimming, Scanning

1. See below.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 UT lumber cancelled	5 UT orientation	6 UT excavation	7	8
9	10 GS architect Meeting Last day to call UT lumber	11 Sign GS agreement	12	13 See owner next door at UT site	14 GS building permit	15
16	17 UT lumber to arrive	18	19 GS crew starts. Give talk	20	21	22
23	24	25	26	27	28	29
30	31 New UT lumber date					

2. What, where and when are the tasks that Sam has to complete?
 - **Sign GS agreement. Tues May 11 in Sam's office**
 - **Talk to GS crew. Wed May 19 on GS site**
 - **Call re lumber. No later than May 10**
 - **Meet potential client. Thurs May 13 at UT site**

3. Sam needs to schedule a trip to Moose Jaw before the end of the month. The trip needs to be 3 consecutive days and the team there doesn't work weekends. When is the first available day that the trip can start? **Monday May 24**

ANSWER KEY: Safety Bulletin: HEO
Skill Builders: Key Words & Phrases

1. Complete the table to connect each possible hazard to a unique action that will minimize the risk and protect your health.

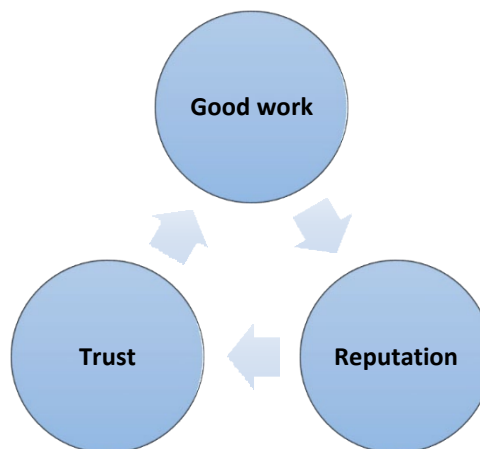
Possible Hazard	Minimize the Risk by...
1. When asbestos is present...	Wear a proper respirator
2. When working with solvents...	Wear gloves (PPE)
3. Before eating or drinking...	Wash your hands
4. When you see a hazard...	Report it to your employer
5. When you don't know how to complete a task...	Ask for safe work instructions and training
6. Consult MSDS to learn about...	Hazardous chemicals used at work

2. Write an example for each type of hazard listed below.
 - 1) Injection hazards: **compressed air or hydraulic hose failure**
 - 2) Biological hazards: **in soil, industrial plants or on equipment**
 - 3) Exhaust fumes: **gas or diesel powered equipment**
3. What are 3 hazards for HEO specific to working outside?
Any 3 of: West Nile Virus, ultraviolet light, biological hazards in soil, or extreme temperatures.
4. What 4 groups of people share responsibility for preventing accidents and illnesses?
Workers, supervisors, employers, industrial clients
5. What is one thing the worker can do away from the workplace to reduce the spread of illness?
Wash work clothes separately from casual and other family members' clothes
6. Identify 2 types of personal protection equipment (PPE) and when you should use each one.
 - a. **Respirator when working with asbestos, dust, and solvents/adhesives OR when welding and using metal working fluids.**
 - b. **Gloves, coveralls OR welding jacket when skin protection is required.**

ANSWER KEY: Starting Your Own Business

Skill Builders: Key Words & Phrases, Skimming, Scanning

1. Answers will vary but should be logical.
2. Answers will vary but should be logical.
3. Answers will vary. Suggestions include:
 - a. Overhead: **total costs of operating a business before profit**
 - b. Lead: **a possible customer (not to be in charge or a metal or a conductor)**
 - c. Break even: **the point where income equals costs**
 - d. Grasp: **understanding (not to grab with the hand)**
 - e. Asset: **a useful or valuable thing**
4. What 4 factors need to be included when calculating overhead?
Labour, equipment, marketing and materials.
5. What are 3 examples of administrative components?
Personnel, marketing and finances.
6. What are 4 examples of ways to thank customers for their business?
Rewards for referrals, discounts to return customers, follow-up services, and frequent buyer program.
7. Draw a diagram to show the relationships between reputation, good work, and trust.
Answers will vary but should indicate reputation → trust → good work. May also include the idea of an ongoing cycle.



ANSWER KEY: Step by Step Instructions: Millwright
Skill Builders: Scanning, Percentages, Decimals & Fractions

1. What is the process being described? **Grinding procedure for metal stock**
2. Divide the steps of the process into the following 3 phases. Write the step numbers in the spaces: **Note: answers may differ and may be considered correct if the pre/apprentice can logically justify them.**
 - a. Safety: **1 & 15**
 - b. Preparation: **2-10**
 - c. Procedure: **11-14**
3. Sometimes steps in instructions have sub-steps or multiple parts.
 - a. Which steps have sub-steps that must be performed to successfully complete the procedure? List them. **Steps 1, 3, 6, 10 and 15. All other steps provide additional information for performing a single step in the procedure.**
 - b. How many sub-steps are in Step 10? List them. **There are 3 steps.**
 - 1. Ensure the wheel is not in contact with the workpiece before turning the main power on.**
 - 2. Press the green button to turn the spindle on.**
 - 3. Turn the coolant switch on.**
4. Which step are performed before the wheel touches the part? **Steps 1-10**
5. Which steps must be completed before setting the grinding depth? **Steps 1- 8**
6. What parts are magnetic? **Chuck and parallels.**
7. Why is some information in steps 1, 9 and 14 written in brackets? How is it different from the rest of the instructions? **The information in the brackets are tips for how to complete the steps. The rest of the information are the basic directions.**
8. Write the following decimals as percentages and as fractions:
 - a. $0.0005 = 0.05\%$ and $5/10,000$
 - b. $0.001 = 0.1\%$ and $1/1,000$
 - c. $0.0002 = 0.02\%$ and $2/10,000$
9. The measurements given are very precise. Calculate the difference in size between $0.0005''$ and $0.0001''$ and show your answer as a fraction. **$4/10,000$ (.0004)**