

# TOWES

## Test of Workplace Essential Skills

Sample Respirator Parts Problem



# Example - Respirator Parts Problem

Look at the tables and diagram from the air purifying respirator guide on the opposite page.



Painters wear respirators to filter out dangerous vapours and particles.

## Sample Question 1

A painter needs a basic facepiece for a medium-sized 7700 series respirator. What is the catalog number for this part?

1

<u>7700-11M</u>
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## Sample Question 2

What is the catalog number and description of the 7700 series part shown below?

2



<i>Catalog number</i>	<i>Description</i>

## Sample Question 3

What is the catalog number and description of the part from the 7700 series mask which is shown below?

3



<i>Catalog number</i>	<i>Description</i>

## 8.2 PREPARE FOR USE

- 1) Install a new pair of air-purifying elements.
- 2) Perform a fit check to make sure that components are functioning properly.

## 9. REPLACEMENT PARTS

COMPLETE ASSEMBLIES		
CATALOG NUMBER		DESCRIPTION
5500 SERIES	7700 SERIES	
5500-30S	7700-30S	Facepiece Assembly Complete, Small
5500-30M	7700-30M	Facepiece Assembly Complete, Medium
5500-30L	7700-30L	Facepiece Assembly Complete, Large

COMPONENTS (See Figure 1.1)			
ITEM	CATALOG NUMBER		DESCRIPTION
	5500 SERIES	7700 SERIES	
1	5500-16	7700-16	Inhalation Connector
2	5500-17	7700-17	Inhalation Valve
3	5500-18	7700-18	Exhalation Valve
4	5500-19	7700-19	Exhalation Valve Seat
5	5500-20	7700-20	Exhalation Valve Guard
6	5500-92	7700-92	Cradle Suspension System
7	5500-11S	7700-11S	Basic Facepiece, Small
7	5500-11M	7700-11M	Basic Facepiece, Medium
7	5500-11L	7700-11L	Basic Facepiece, Large

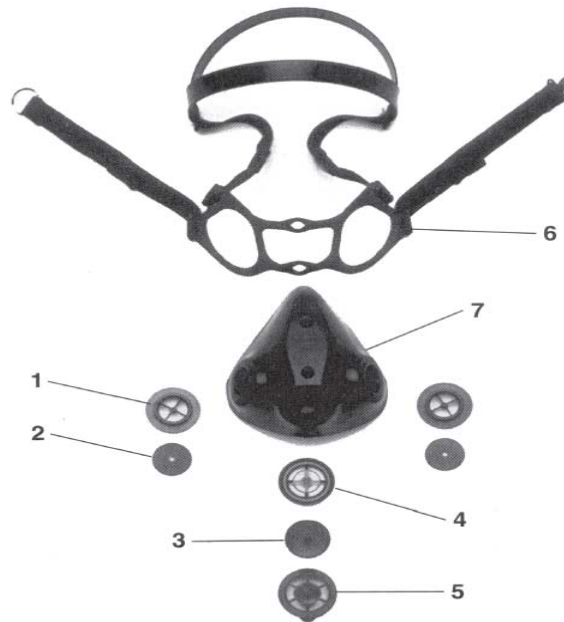


Figure 1.1

# Solving the Respirator Parts Problem

The Respirator Parts Problem, like most other TOWES problems, requires a number of Reading and Document Use skills. In this problem set, the test taker is asked to find catalog numbers which are embedded in a four-column table.

The first step in solving the three questions is to identify the task required. After looking at the questions, the test taker is better able to frame the requested information (the answer to the question) in language that matches the given information (the question itself). The answer can be found on a page from a respirator parts manual, which shows an enlarged view of a respirator with the various parts numbered for reference. Above the picture of the respirator, two four-column tables relate the reference numbers in the illustration to catalog numbers and part descriptions.

**Question One** asks for a catalog number of a named part. In terms of reading skills it asks the test taker to ‘scan’ the chart for the words: basic faceplate, medium, and 7700 series. As the search terms are in the exact language used in the chart, no inference is required. However, some understanding of row and column information is needed to extract the answer. Note that the task of finding the catalog number requires the test taker to search the final description list, which is actually ordered according to the number shown in the illustration. For the purpose of this question it is ordered randomly and presents a more difficult search task than if the list had been organized alphabetically.

**Answer: 7700-11M**

**Question Two** adds the requirement for visual discrimination to the search task. It also asks the test taker to synthesize information from two source documents and two information formats (the enlarged view of the respirator and the four-column table above it). The test taker has to first locate the pictured part in the illustration, then recycle the information as part of the given information for the next search. This search uses the numerically ordered list in the first column of the table - an easier search task than scanning the randomly ordered list in the first question.

**Answer: 7700-16 (catalog number), Inhalation connector (description)**

**Question Three** adds another level of difficulty to question two. Unlike the inhalation connector in question two, the cradle suspension system shown in question three has different catalog numbers of the 5500 and 7700 models. The test taker has to select the correct sub-heading from the two possibilities nested under the Catalog Number heading.

**Answer: 7700-92 (catalog number), Cradle suspension system (description)**

Regardless of the specific setting and workplace task presented, the skills demonstrated in this problem set are all transferable skills, which can be applied to other situations and other contexts. We may not all use respirators as part of our jobs, but we are all required to find information contained in tables and charts. TOWES tests a wide range of applied Reading, Document Use and Numeracy skills required for safe and productive employment in all Canadian occupations.

