

Multi-State Advanced Manufacturing Consortium

US DOL SPONSORED TAACCCT GRANT: TC23767
PRIMARY DEVELOPER: Jim Blair – Henry Ford College

 RELEASE DATE
 2/22/2016

 VERSION
 v 001

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Basic Electricity – Unit 3 Part 1: Atomic Structure

Worksheet 1

How many electrons fit in each shell around an atom?

The maximum number of electrons that can occupy a specific energy level can be found using the following formula:

Number of electrons in a shell = $2n^2$

The variable *n* represents the Principal Quantum Number, the number of the energy level in question.

| Energy Level (Principal Quantum Number) | Shell Letter | Electron Capacity |
|--|--------------|-------------------|
| 1 | K | 2 |
| 2 | L | 8 |
| 3 | M | 18 |
| 4 | N | 32 |
| 5 | 0 | 50 |
| 6 | Р | 72 |







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