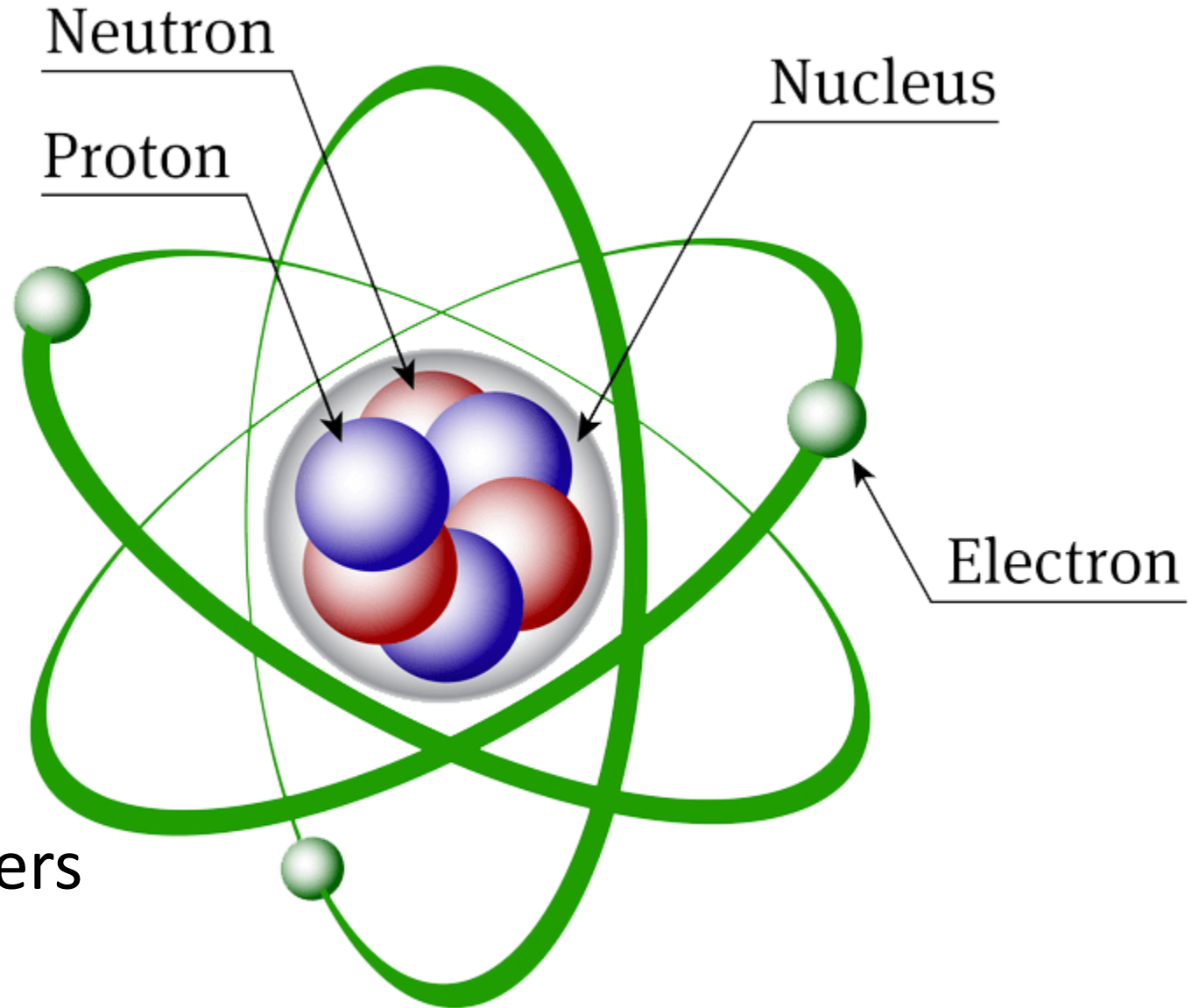


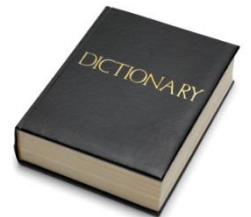
Atomic Structure



Chapter 29

Science Matters

An Element is a simple substance that cannot be split up into simpler substances by chemical means.



Prior Learning

ELEMENTS, COMPOUNDS

&

MIXTURES

Chapter 21
Science Matters



Checklist



Task number	What I Need to Do	Completed ✓
1	Decide with my home group what my work will be	
2	Learn my topic 29.1 Where did the idea of atoms come from 29.2 Particles inside atoms 29.3 Structure of the atom 29.4 Atomic Structure of the first 20 elements	
3	Read my topic at least twice	
4	Create a presentation piece	
5	Write a presentation narrative	
6	Deliver my topic to my group	
7	Create a model of the Atom	
8	Use my model to explain atomic numbers, mass number and Isotopes	

Needed to Do or Know	4	3	2	1
Did they work well as a team	Whenever there was difficulties, these were faced and help was provided from within the team	Most of the difficulties were faced and nearly always help was provided from within the team	Many of the difficulties were faced and often help was provided . Some assistance from the teacher was required	Difficulties were rarely faced and help was rarely provided. Significant assistance was required from the teacher
Did they focus on the topic	The focus of the work was constant and all tasks were completed properly.	The focus was mostly directed to what should be done and most of the tasks have been completed properly.	The focus was often directed to what should be done, but some tasks were not completed properly.	Rarely the focus of the work was directed to what should be done and many tasks were not completed properly.
Create a model of the Atom	The task was completed correctly to a very high standard	The task was completed correctly to a very good standard	The task was completed correctly to an acceptable standard	The task was completed but it did not match expectations
Use the model to explain atomic numbers and Isotopes	The explanation was completed and exceeded expectations	The explanation was completed and matched expectations	The explanation was completed and did not expectations	The explanation was not completed
Individual Performances Team leader Researcher Organiser Reporter	Completed all of the tasks assigned without assistance or guidance	Completed most of the tasks assigned with some assistance provided	Completed some of the tasks assigned but required significant assistance	Completed little or none of the assigned tasks and other members had to complete the tasks

Learning Outcomes

OC39 Describe the structure of the atom, state the location, relative charge, and atomic mass of the sub-atomic particles, and define atomic number, mass number and isotopes

Homework



Key words

- Atom
- Atomic
- Sub–atomic particles
- Protons
- Electrons
- Neutrons
- Atomic mass unit
- Orbit
- Shell
- Electron cloud
- Atomic number
- Mass number
- Nuclear formula
- Periodic Table



Jig Saw

We learn a little piece of the
topic and teach it to our
friends





Step 1

Work in your
Home Groups
to assign work



Step 2

Leave your group
and join your
expert group

Step 3



Assign Roles

1. Team Leader
2. Lead Researcher
3. Equipment manager
4. Team Reporter

What's my Job



Team Leader

Design a work plan was and present to team members. Ensure the completion of tasks of each team member until complete.

Lead Researcher

All research questions, sources and tools were previously validated and checked against the learning intentions.

Team Organiser

All team members received the material needed to create the presentation and received their copy of the presentation narrative.

Team Reporter

All progress updates explain clearly what each of the team members are doing.



Step 4

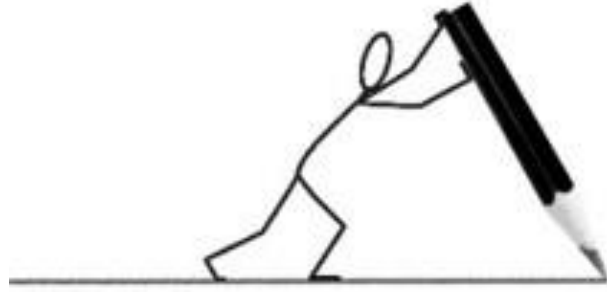
Read over your
piece twice (2)

Step 5



Decide what your
group thinks is
important to
remember

Step 6



Write down a
story board for
your home group

Step 7



The group decides on the best way to teach your piece back to the home group but using a common narrative



Step 8

Re-join your
Home Group



Step 9

Present your Piece
to your Home
Group at least
twice



Evidence of Learning

artcreator FOT



Complete your Checklist



Assessment

- Atom
- Atomic
- Sub –atomic particles
- Protons
- Electrons
- Neutrons
- Atomic mass unit
- Orbit
- Shell
- Electron cloud
- Atomic number
- Mass number
- Nuclear formula
- Periodic Table



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Homework

