Chemistry's Core Ideas

By Dr. Peter Atkins

Google Slides Presentation Created By
Name 1
Name 2

Directions

Using the article “Chemistry’s Core Ideas” by Dr. Peter Atkins, complete the following sections of the Google Slides Presentation:

Section 1: Summary of the Main Ideas from the Article

Section 2: Relationship to the IB Syllabus

More specific directions are given on the first slide of each section.

The last slide gives you an opportunity to ask questions that you’d like to have answered during our two years together.

Section 1: Summary of the Main Ideas

For each of the following 9 slides, add three to four details in the form of statements that provide context and depth to the main idea given by Dr. Atkins.

You can use direct quotes from the article (and if so, please put in quotes), or you can write ideas in your own words.

Main Idea 1: Matter is composed of atoms.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 2: Elements form families.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 3: Bonds form between atoms by sharing electron pairs.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 4: Shape is of the utmost importance.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 5: Molecules interact with one another.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 6: Energy is conserved.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 7: Energy and matter tend to disperse.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 8: There are barriers to reaction.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Main Idea 9: There are only four fundamental types of reaction.

- Supporting Detail 1
- Supporting Detail 2
- Supporting Detail 3
- Supporting Detail 4

Section 2: Relationship to the IB Syllabus

For each of the following 9 slides, add as many syllabus subtopics as possible.

Use the Syllabus Content: Overview document linked HERE.

As an example, for “Shape is of the utmost importance” you might consider the following:

- 4.1: Ionic bonding and structure
- 4.3: Covalent structures
- 14.1: Covalent bonding and electron domain and molecular geometries

Try to use all of the subtopics in the Syllabus Content document (except for the options).

And...subtopics can (should!) be used more than once.

Main Idea 1: Matter is composed of atoms.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 2: Elements form families.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 3: Bonds form between atoms by sharing electron pairs.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 4: Shape is of the utmost importance.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 5: Molecules interact with one another.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 6: Energy is conserved.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 7: Energy and matter tend to disperse.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 8: There are barriers to reaction.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Main Idea 9: There are only four fundamental types of reaction.

- Syllabus Subtopic 1
- Syllabus Subtopic 2
- Syllabus Subtopic 3
- Syllabus Subtopic 4
- And so on...as many or as few as needed

Questions

What questions do you have about chemistry after completing this activity that you hope to have answered during our two years together?

- Question 1
- Question 2
- And so on...add as many as needed