

## **Resources for Science Department Instruction 2010**

### **7<sup>th</sup> Grade**

Materials may include, but are not limited to the following:

1. Current and previously adopted textbooks
2. Resource books
3. Study guides
4. Photocopies of resource materials from publisher
5. Photocopies of resource materials created by teacher
6. Tests and quizzes
7. Charts, maps, and graphs
8. Laboratory exercises and experiments
9. Simulations
10. Games
11. Computer based instruction
12. Reports
13. Group discussion/activities/posters
14. Computer presentations
15. Field trips
16. Guest speakers
17. Audiovisual materials
18. Demonstrations
19. Videos and internet streaming
20. Handheld clicker devices

## **8<sup>th</sup> Grade**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Resource books
3. Study guides
4. Photocopies of resource materials from publisher
5. Photocopies of resource materials created by teacher
6. Tests and quizzes
7. Charts, maps, and graphs
8. Laboratory exercises and experiments
9. Simulations
10. Games
11. Computer based instruction
12. Reports
13. Group discussion/ activities/ posters
14. Computer presentations
15. Field trips
16. Guest speakers
17. Audiovisual materials
18. Demonstrations

## **Biology**

Resource Materials may include, but are not limited to the following:

1. Current and previously adopted textbooks
2. Lab manual
3. Study guide
4. Photocopies of resource materials from current publisher
5. Resource books
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources such as National Institutes of Health and National Academy of Science
8. Tests and quizzes
9. Charts, maps, and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction and/or research
14. Internet web sites
15. Reports
16. Group discussion/activities/posters
17. Computer presentations
18. Field labs and/or field trips
19. Guest speakers
20. Audiovisual materials
21. Demonstrations
22. Hand held clicker devices

## **Honors biology**

Materials may include, but are not limited to the following

1. Current and previously adopted textbooks
2. Lab manual
3. Study guide
4. Photocopies of resource materials from current publisher
5. Resource books
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources such as National Institutes of Health and National Academy of Science
8. Tests and quizzes
9. Charts, maps, and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction
14. Internet web sites
15. Reports
16. Group discussion/activities/posters
17. Computer presentations
18. Field labs and/or field trips
19. Guest speakers
20. Audiovisual materials
21. Demonstrations
22. Science Project guide from Science for Society and the Public
23. Teacher prepared guidelines for science project
24. Science fairs and competitions

## **Earth Science**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Resource books
3. Laboratory manuals
4. Study guides
5. Photocopies of resource materials from publisher
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources
8. Tests and quizzes
9. Charts, maps, and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction
14. Reports
15. Group discussions/ activities/ posters
16. Computer presentations
17. Field trips
18. Guest speakers
19. Audiovisual materials
20. Demonstrations
21. Video worksheets
22. Notebook checks

## **Integrated Chemistry Physics**

1. Desktop and laptop computers
2. Software
  - a. Microsoft Excel
  - b. Microsoft PowerPoint
  - c. Vernier Logger Pro
3. Velocity and acceleration lab resources
4. Motion and force videos/DVDs
5. Force and simple machines lab resources
6. Project NEED (National Energy Education Development) resources
  - a. Energy stations lab
  - b. Energy InfoBooks
  - c. Exploring Wind books
  - d. Wind turbine materials
  - e. Monitoring and mentoring kit and books
7. Library online databases
  - a. SIRS
  - b. Facts on File
  - c. Newsbank
  - d. Inspire
8. Electricity and magnetism lab resources
9. Electricity and magnetism demonstration devices
10. Waves, sound, and light lab resources
11. Waves, sound and light demonstration devices
12. Atomic model building
13. Nuclear radiation lab resources
14. Chemistry lab resources
15. Thermal chemistry lab resources
16. pH chemistry lab resources
17. Current and previously adopted textbooks
18. Other instructor books and manuals
19. Instructor created homework, lab, and review packets
20. Test and quizzes
21. Reports
22. Student presentations

## **Chemistry I**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Resource books
3. Lab manuals
4. Study guides
5. Photocopies of resource materials from publisher
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources
8. Tests and quizzes
9. Charts and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction
14. Reports
15. Group discussion/ activities/ posters
16. Computer presentations
17. Field trips
18. Guest speakers
19. Audiovisual materials
20. Demonstrations

## **Chemistry II**

1. Current and previously adopted textbooks
2. Resource books
3. Lab manuals
4. Study guides
5. Photocopies of resource materials from publisher
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources
8. Tests and quizzes
9. Charts and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction
14. Reports
15. Group discussion/ activities/ posters
16. Computer presentations
17. Field trips
18. Guest speakers
19. Audiovisual materials
20. Demonstrations

## **AP Chemistry**

1. Current and previously adopted textbooks
2. Resource books
3. Lab manuals
4. Study guides
5. Photocopies of resource materials from publisher
6. Photocopies of resource materials created by teacher
7. Photocopies of resource materials from supplementary sources
8. Tests and quizzes
9. Charts and graphs
10. Laboratory exercises and experiments
11. Simulations
12. Games
13. Computer based instruction
14. Reports
15. Group discussion/ activities/ posters
16. Computer presentations
17. Field trips
18. Guest speakers
19. Audiovisual materials
20. Demonstrations



## **Physics**

1. Desktop and laptop computers with Logger Pro
2. Modeling physics curriculum labs and packets
3. Velocity and acceleration lab resources
4. Force lab resources
5. Projectile motion video files
6. Circular motion lab resources (flying pigs)
7. Energy and momentum lab resources
8. Whiteboards/student presentations
9. Electricity and magnetism lab resources
10. Electricity and magnetism demonstration devices
11. Waves and sound lab resources
12. Cello playing
13. Geometric and physical optics lab resources
14. Nuclear physics lab resources
15. Current and previously adopted textbooks
16. Instructor books and manuals
17. Instructor created handouts
18. Tests and quizzes
19. Audiovisuals

## **AP Physics B Resources**

1. Desktop and laptop computers with Logger Pro
2. Mechanics lab equipment
3. Waves and sound lab equipment
4. Thermal physics lab equipment
5. Fluid physics lab equipment
6. Electric field computer simulations
7. Electric circuit lab equipment
8. Magnetism modeling resources
9. Geometric optics lab equipment
10. Physical optics lab equipment
11. Nuclear physics lab equipment
12. Current and previously adopted textbooks
13. Instructor books and manuals
14. Past AP Physics B exams
15. Materials from AP Central
16. Test and quizzes
17. Instructor created supplementary materials
18. Demonstrations

## **Advanced Biology Anatomy and Physiology**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Lab manual
3. Photocopies of resource materials from current publisher
4. Resource books
5. Photocopies of resource materials created by teacher
6. Photocopies of resource materials from supplementary sources such as National Institutes of Health and National Academy of Science
7. Tests and quizzes
8. Charts and graphs
9. Laboratory exercises and experiments
10. Simulations
11. Computer based instruction
12. Reports
13. Group discussion/activities/posters
14. Computer presentations
15. Field trips
16. Guest speakers
17. Audiovisual materials
18. Demonstrations
19. Science Project guide from Science for Society and the Public
20. Teacher prepared guidelines for science project
21. Science fairs and competitions
22. Science project

### **Advanced Biology Ecology**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Photocopies of resource materials
3. Resource books
4. Photocopies of resource materials created by teacher
5. Photocopies of resource materials from supplementary sources such as National Science Teachers Association
6. Tests and quizzes
7. Charts, maps, and graphs
8. Laboratory exercises and experiments
9. Simulations and scenarios
10. Games
11. Computer based instruction
12. Reports
13. Group discussion/activities/posters
14. Computer presentations
15. Field labs and/or field trips
16. Guest speakers
17. Audiovisual materials
18. Demonstrations
19. Science Project guide from Science for Society and the Public
20. Teacher prepared guidelines for science project
21. Science fairs and competitions
22. Science project

### **Advanced Biology Genetics**

Materials may include, but are not limited to, the following materials as applicable to a given lesson or unit:

1. Current and previously adopted textbooks
2. Case Studies
3. Resource books
4. Photocopies of resource materials created by teacher
5. Photocopies of resource materials from supplementary sources such as National Institutes of Health and Biological Science Curriculum Study
6. Tests and quizzes
7. Charts, pedigrees, and graphs
8. Laboratory exercises and experiments
9. Simulations
10. Models
11. Computer based instruction
12. Reports
13. Group discussion/activities/posters

14. Computer presentations
15. Field trips
16. Guest speakers
17. Audiovisual materials
18. Demonstrations
19. Science Project guide from Science for Society and the Public
20. Teacher prepared guidelines for science project
21. Science fairs and competitions
22. Science project

### **Research**

1. Photocopies of resource materials
2. Resource books
3. Photocopies of resource materials created by teacher
4. Photocopies of resource materials from supplementary sources such as National Institutes of Health and Biological Science Curriculum Study
5. Charts, maps, and graphs
6. Laboratory exercises and experiments
7. Simulations
8. Games
9. Computer based instruction
10. Reports
11. Group discussion/activities/posters
12. Computer presentations
13. Field labs and/or field trips
14. Guest speakers
15. Audiovisual materials
16. Demonstrations
17. Science Project guide from Science for Society and the Public
18. Teacher prepared guidelines for science project
19. Science fairs and competitions
20. Science project