GEORGIA | PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

HEALTHCARE SCIENCE

PATHWAY: Biotechnology Research & Development

COURSE: Introduction to Biotechnology

UNIT 4: Teamwork Leadership

INTRODUCTION

Annotation:

In this unit students will be engaged in the practical application of leadership and teamwork knowledge and skills.

Grade(s):

X	9th
X	10th
X	11th
X	12th

Time:

10 hours

Author:

Phyllis Dumas

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.

FOCUS STANDARDS

GPS Focus Standards:

HS-IBT-3. **Students will analyze careers in research and development, human health and diagnostics, biomanufacturing, environmental applications, and agriculture that utilize biotechnology.**
   e) Describe the role of Student Organizations (e.g., HOSA, FBLA, Key Club, and BETA) and their importance in leadership development.
   f) Demonstrate an understanding of the nature of employer-employee relationships.

GPS Academic Standards:

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas. The student
   c) Relates messages and themes from one subject area to those in another area.

ELA10RL4 The student employs a variety of writing genres to demonstrate a comprehensive grasp of significant ideas in selected literary works. The student composes essays, narratives, poems, or technical documents. The student
   d) Includes a formal works cited or bibliography when applicable.

UNDERSTANDINGS & GOALS

Enduring Understandings:

• Today, businesses rely more and more on teams of employees to get the job done. Teamwork and leadership are important life long skills that can be developed in school through participation in cooperative learning groups and membership in student organizations.

Essential Questions:

• How does teamwork benefit both team members and business?
• How does leadership impact the effectiveness of a team?
• How does participation in various student organizations impact leadership and teamwork?

Knowledge from this Unit:
Students will know:
• The benefits of teamwork and leadership skills
• How to work as a member or leader of a team
• How to engage in leadership and teamwork activities in the classroom and as a member of student organizations

Skills from this Unit:

• Team planning for fund raising

- Team Planning for Community Service project
- Implement Community Service Project

ASSESSMENTS

Assessment Method Type:

        Pre-test
        Objective assessment - multiple-choice, true- false, etc.
          __ Quizzes/Tests
          __ Unit test
    x   Group project
        Individual project
        Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
          __ Self-check rubrics
          __ Self-check during writing/planning process
          __ Journal reflections on concepts, personal experiences and impact on one's life
          __ Reflect on evaluations of work from teachers, business partners, and competition judges
          __ Academic prompts
          __ Practice quizzes/tests
        Subjective assessment/Informal observations
          __ Essay tests
          __ Observe students working with partners
          __ Observe students role playing
        Peer-assessment
          __ Peer editing & commentary of products/projects/presentations using rubrics
          __ Peer editing and/or critiquing
    x   Dialogue and Discussion
          __ Student/teacher conferences
          _x_ Partner and small group discussions
          __ Whole group discussions
          __ Interaction with/feedback from community members/speakers and business partners
        Constructed Responses
          __ Chart good reading/writing/listening/speaking habits
          __ Application of skills to real-life situations/scenarios
        Post-test

Assessment Attachments and / or Directions:

Rubric for Brochure, Teamwork

LESSON PLANS

Instructional planning:

- **LESSON 1: Teamwork**

   1. Identify the standards. Standards should be posted in the classroom.

Students will analyze careers in research and development, human health and diagnostics, biomanufacturing, environmental applications, and agriculture that utilize biotechnology.
e) Describe the role of Student Organizations (e.g., HOSA, FBLA, Key Club, and BETA) and their importance in leadership development.
f) Demonstrate an understanding of the nature of employer-employee relationships.

2. Review Essential Question(s). Post Essential Questions in the classroom.
   • How does teamwork benefit both team members and business?
   • How does leadership impact the effectiveness of a team?
   • How does participation in various student organizations impact leadership and teamwork?

3. Identify and review the unit vocabulary. Terms may be posted on word wall.

Term 1	Term 2	Term 3
Leadership	Teamwork	Professional Organizations
Robert's Rules of Order	Lincoln-Douglas Debate	Team Member
HOSA	FBLA	Key Club
BETA		

4. Interest approach – Mental set
   Ask students if they have ever been part of a team outside of school. Ask them to describe what they recall about the team-some question might include: how was the team formed, was a selection process, what did you have to do or have to be a part of the team, what went well and not so well with the team?

   A. Discuss the fact that many times in life especially in the workplace you may have to work with a group as you have already experienced in this class.
   B. Pace a situation that need to be solved. You will be placed in teams and asked to work together to come up with the solution and plan a role play to demonstrate your solution. Give students **The Baffling Bridge** handout. Use the **Baffling Bridge Teacher Notes** to explain to students what to do. Grade them using the **Teamwork Rubric**
   C. Allow a couple of groups to share their findings and demonstrate their conclusion.
      • Discuss the group dynamics. Was teamwork evident among the group? Did they come to a consensus on the conclusion? What team problems occurred if any? Who emerged as the leaders in the groups?
      • Ask students how many of them belong to organizations and depending on the responses, as them the purpose of the organizations or why did they join.
      • Ask students what they think are the benefits of belonging to a student organization? Ask if all organizations serve the same purpose? Tell them tomorrow we will take a closer look at various student organizations.

• **LESSON 2: Student Organizations Research…**

1. Review Essential Questions. Post Essential Questions in the classroom.
   • How does teamwork benefit both team members and business?
   • How does leadership impact the effectiveness of a team?
   • How does participation in various student organizations impact leadership and teamwork?

2. Ask students to recall the opportunity to work as a team on a project during the previous lesson and review responses.
• Give students a copy of the **Student Organization 101 Teamwork and Leadership Handout** and the **Student Organization Brochure Rubric**. Assign students to teams of 4-5 people and ask them to research assigned student organization: CTI, FCCLA, FBLA, DECA, TSA, FFA, GCSA, and Key Club
3. Allow each team to meet and plan assignment and present plan to teacher by end of class with an outline of each team member's responsibilities

• **LESSON 3-4: Teamwork and Leadership-Student organization Brochure**

1. Review Essential Questions. Post Essential Questions in the classroom.

    - How does teamwork benefit both team members and business?
    - How does leadership impact the effectiveness of a team?
    - How does participation in various student organizations impact leadership and teamwork?

2. Students will continue work on project and present project to class, ask students to write a reflective paper on what they learned about student organizations and leadership and turn it in the following day.

• **LESSON 5-8: Plan Fundraising Project**

1. Review Essential Questions. Post Essential Questions in the classroom.

    - How does teamwork benefit both team members and business?
    - How does leadership impact the effectiveness of a team?
    - How does participation in various student organizations impact leadership and teamwork?

2. Each team will develop a plan, either a fundraising project or community service project, to be part of the HOSA program of work. Use the HOSA Handbook at http://www.hosa.org/natorg/StudentHandbookB.pdf or http://web1.msue.msu.edu/cyf/youth/cls/documents/PlanYourCommServProj.pdf for ideas.
3. Each team will research what is involved in planning a fundraiser or community service project, develop a plan based on their research and share the plan the class (See sample websites below to help with planning).
4. Give the students a **Group Meeting Log** to fill out as they work on the project.

• **LESSON 9-10: Plan Fundraising Project**

1. Review Essential Questions. Post Essential Questions in the classroom.

    - How does teamwork benefit both team members and business?
    - How does leadership impact the effectiveness of a team?
    - How does participation in various student organizations impact leadership and teamwork?

2. Each team will develop present their proposals and the class will decide which plan or proposal they would like to implement.

3. Have student complete the **Teamwork and Leadership Quiz**

- **ATTACHMENTS FOR LESSON PLANS**

- **Baffling Bridge Handout**
- **Baffling Bridge Teacher Notes**
- **Teamwork Rubric**
- **Group Meeting Log**
- **Student Organization 101 Teamwork and Leadership Handout**
- **Student Organization Brochure Rubric**
- **Teamwork and Leadership Quiz**

☑ CULMINATING PERFORMANCE TASK

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Attachments for Culminating Performance Task:

☑ UNIT RESOURCES

Web Resources:

- HOSA Biomedical Debate http://www.hosa.org/natorg/sectb/cat-iv/bmd.pdf
- http://ehs.okstate.edu/kopykit/1200-79.pdf
- http://www.gactso.org/
- http://www.ehow.com/how_135538_fund-raising-event.html

Materials & Equipment:

21st Century Technology Used:

☐ Slide Show Software	☐ Graphing Software	☐ Audio File(s)
☐ Interactive Whiteboard	☐ Calculator	☐ Graphic Organizer
☐ Student Response System	☐ Desktop Publishing	☐ Image File(s)
☐ Web Design Software	☐ Blog	☐ Video
☐ Animation Software	☐ Wiki	☐ Electronic Game or Puzzle Maker
☐ Email	☐ Website	