Topic: Wind Turbines based off Alex Perkins lesson plan ideas
Date: 10/22/2023
Teacher: Shayla Flaherty
Grade + Subject: Middle School - English

Essential Question(s):	Lesson Objectives
1. How would you communicate the renewable energy technology of wind turbines to fellow classmates?	By the end of the lesson, students will be able to: 1. Effectively communicate the background, benefits, shortcomings, importance, and future of wind technology to classmates.

Curriculum Framework/Learning Standard(s):

This lesson incorporates the important skills of communication, research and the citing of resources, presentation, reflection, and teamwork. These skills are essential for a student's comprehension and application of a topic.

Materials and Resources: (attached if applicable)	Formative Assessments:
- **Computer** - **Social Media Platform Account (Media Platform of choice: Facebook, Instagram, Twitter, Snapchat)**	Assessment of learning will be based on the creation of a post and a submission of a written reflection paper.

Warm-up:

Students will create a social media post that informs fellow classmates of the background, importance, benefits, conflicts, and future of wind technologies. In groups, students will present their post to the class and will write a reflection to assess learning. To warm up, students will, in groups, identify what they already know about wind technology. This can be familiar terms, concepts, or ideas. Students will then be responsible for informing other groups of what their group collectively knows. At the end of the activity, each student will identify one question they have unanswered about wind technology.

Procedures

Instructional Practice: Include time budget/pacing; possible questions to ask students; student grouping (cooperative learning) strategies; how you will communicate high standards and expectations when beginning, carrying out, and completing the lesson; how you will make the content comprehensible for ELL students. Bullet steps in enough detail that a substitute could teach the lesson.

Time – Warm up: 15 minutes
Activity (Making the Post): 35 minutes
Assessment of Completion: 10 minutes for each group (Groups will assess what they need to finish on their post and prepare for presenting their posts during the next class period).

Budget – None (can create free social media accounts)

Questions – During the time the students are working on their activity, remind students to consider their audience and base their message, tone, platform, and information accordingly to that audience (other

students). **This can be expanded upon in mini lessons to each group on not using jargon, creating a clear and succinct message, and create a call to action.**

High Standards – Ideally, there would be a previous class period discussion on anthropogenic climate change and the fossil fuel connection. This will lead students to the understanding of renewable energies and their importance.

ELL: To accommodate English Language Learners, ELL students can create a post that relates to their culture (the landscape and climate concerns that they are most familiar with) and the teacher and other students can provide help with presentation and/or grammar help if needed.

Closing/ticket to leave

The ticket to leave the activity class will be a written plan/ script of what each group has left to complete on the post and the presentation organization.

The ticket to leave the next class (when each group presents), is that everyone would write one thing they learned from each group's presentation and one lingering question.

Homework (if applicable):

The homework is to finish the post and prepare for the next class presentation. The homework is to also write a reflection on how they decided on which platform to use, why they chose to write their message the way they did (tone, mood, style), the main point they want to get across to their audience, and what they learned from their research on wind technologies when creating the post.

Optional: Share the media post with student's family
Optional: With the student's permission, each of the group's social media announcements can be posted to the school's social media channel to observe how the public reacts to the message and see the process.

Adaptations/Modifications for Students
At differing achievement levels, learning styles, multiple intelligences, language backgrounds of individual students.

To accommodate different learning styles and overall comprehension and efficiency, the teacher can provide the class with helpful websites where students can learn about wind turbines (EIA, Department of Energy). The teacher can also go around to each group periodically, checking for comprehension on the topic and provide assistance with understanding wind turbine terminology. The teacher can also demonstrate citing resources on the board, so everyone has practice with correctly citing their sources used or referenced. With different language backgrounds, the teacher can check comprehension of certain words and help communicate the bigger picture.

Pitfalls and Solutions (What could go wrong and how will I handle it?)

Problem: Students may not allocate workload/ tasks fairly within a group.
Solution: Each group member can be assigned a role based on what the group collectively decides. This could be Student A researches the benefits/ importance, Student B researches the background, Student C researches the opinions/ controversies and solutions if addressed, and Student D researches the local connection or future of wind technology.

Lesson Plan Feedback Form
October 27, 2023

Shayla,

I'm a big fan of weaving social media into a lesson. It is accessible for students, it is relevant for their lives, and sometimes we get great responses when the posts are actually shared out. I think you are providing a fun way to access/expand on Alex's story. I am going to share Glows, Grows, Suggestions. Please let me know if you have any questions or feedback for me!

- Albert

Glows

- Your **Pitfalls & Solutions** includes roles! The more we can lay out for students, the better. When you have roles for group work, students know *exactly* what they should be doing and how their contribution drives the group forward. I'm not sure what you will be teaching, but might I suggest you have roles and their responsibilities as an anchor chart. In my classroom I had a Lab Role (Time Keeper, Note Catcher, Lab Leader, etc.) poster that laid out responsibilities.
- In your **Adaptations,** you are already anticipating students that might *not* know a lot about wind, or might not feel like they know enough information to contribute. Having a pre-populated list of resources or questions that you will provide. The more you have it listed out in your Lesson Plan, the easier it will be to reflect those resources in your student-facing materials.

Grows

- Your **Warmup** in your lesson plan has a lot more information about the full lesson. I would say your Warmup should have the questions that students will be asked and possible responses. This way, when you review your Warmup you can give directed feedback or help students get to responses that you'd like.
- Think about your timing with your **Procedures**. Will the Warm Up take 15 minutes, why? What are students responding to in that time frame? Students should have a sense of urgency with each part of the lesson. If they have 15 minutes for a warmup that is just answering 1 question, you are creating a space for students to engage in off-task behaviors.

Suggestions

- A suggestion I have given other teachers is breaking down your big chunks of activity time. Students should know what you are looking for at several points throughout the time chunks.
    - For example: take the first 5 minutes to identify your topic, set time, and when it goes off do a lap, to check-off that students have selected their topic. Then announce that in the next 10 minutes they need to have their outline for their social media post, etc.
- Also make sure you are attaching a **Learning Standard** - we should be working towards or embedding standards throughout our lessons.

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