**Thematic Unit: Utah Environments**

**Learning Goals:**

The learning standard for this unit is that students will understand the physical characteristics of Utah's wetlands, forests, and deserts and identify common organisms for each environment. The four curriculum areas that will be integrated are science, English language arts, social studies, and mathematics.

**Needs Analysis:**

Based on the Utah State Core Curriculum, students will understand the physical characteristics of Utah's wetlands, forests, and deserts and identify common organisms for each environment. The fourth grade students will:

* Describe the physical characteristics of Utah's wetlands, forests, and deserts.
* Describe the common plants and animals found in Utah environments and how these organisms have adapted to the environment in which they live.
* Use a simple scheme to classify Utah plants and animals.
* Observe and record the behavior of Utah animals.

Students will be given a pre-assessment to determine their background knowledge, what they already know about sound, what they want to learn and how they want to learn the information.

**Learner Analysis:**

This information is based on a survey given to the class at the beginning of the school. In addition, a pre-assessment/ survey was given to the students prior to design of the unit to ascertain current educational needs and background knowledge.

**Demographics:**

My fourth grade class is made up of 23 students. There are currenlty11 females and 12 males in the class. About half of my students are ten years old, and the other half are nine years old, turning ten years old. There are three students who currently have an IEP. One of my students is receiving special education services for reading. The speech and language pathologist services 2 of my students. The school psychologist services one of my students. 8 of my students speak Spanish at home, and get notes sent to their parent in Spanish. As far as official English Language Learners I have 4. 1 has a WIDA proficiency of 3, and 3 have a WIDA proficiency of 2. Five of my students have diagnosed behavioral issues.

Three students are African American, ten are Latino, and ten are Caucasian. All students attend a Title I school where the socio-economic background of students is very diverse and the population is very transient. 3/4 of the students in my class receive free or reduced meal breakfasts and lunches. Eight of my students attend the after school program that is put on by the Boys and Girls club. Four of these students receive intense intervention during the homework power-hour. These eight students also receive dinner funded by the after school program.

Attitudes, Values and Opinions:

Based on the pre-assessments/surveys given to the class, 18 of the students report liking school. 12 of the students reported that science was their favorite subject. Three of the students reported not liking to attend school. Of these three students two of them reported science as their favorite subject. 12 students prefer working with a partner. Six students prefer to work with a small group. Four students prefer working alone.

50% of the students reported that their favorite part of science was doing “hands on” experiments. 25% reported that they liked watching other people do the experiments. 100% of the student reported that reviewing what they learning the previous day, was helpful to them. 70% of the students liked taking notes in their science journal. 60% of the students reported that their science packets have helped them review for tests.

Access to Technology:

20% of students reported access to a computer and the Internet at home. The other 60% of the students reported that computer access and Internet were available to them at the library or a friend or relatives home.

100% of students have access to computers and internet at school in one of the two school’s computer labs along with a 4th grade portable computer lab and a portable iPad lab that is housed in our classroom and available for their use. .

Schedules:

18 out of the 23 students attend school regularly. 5 students miss school on a regular basis with parent(s) calling the school office, reporting student illness or family “trips” as the excuse.

This Utah environment unit will be approximately 8 days with 35-minute science periods. Science is taught Mondays through Thursday from 2:05-2:40. Science instruction is not taught on Fridays due to student early dismissal. During the science time, 4 of the ELL students will go to another fourth grade teacher’s classroom to receive REACH instruction, and 4 of her students will attend my class.

Learner Skills:

29% of students have reading and comprehension levels at the 4th grade level or higher. 54% are slightly below grade level in either oral fluency and/or comprehension. 17% are reading and comprehending below a third grade level.

70% of students of the students complete work as assigned. 20% have difficulty completing work independently and need additional scaffolding for completion. 10% fail to complete and turn-in acceptable assignments at least 50% of the time.

In the classroom for 1 hour of the day, during our BLAST time the classroom has an intervention assistant who works on spelling, fluency and word skills in small groups for 15-minute sessions daily. The class also has another intervention assistant who pulls the lowest six students daily and works with them for a half hour in small groups of three daily. This assistant works on reading and work skills.

**Task Analysis**: **4th Grade Students will**:

1. Compare and contrast in writing the physical characteristics (e.g., precipitation, temperature, and surface terrain) of Utah's wetlands, forests, and deserts by filling out a Venn diagram.
2. Students will view and participate in an interactive PowerPoint on Utah Environments.
3. Vocabulary words will be pre-taught before the lesson, written in science journals with students’ illustrations, definitions, examples and non-examples.
4. Wetland
5. Desert
6. Mountain/Forest
7. Work in small-groups (4 – 5 students) to gather information to preform a jigsaw at the end of their work time. Each group will be assigned an environment to become an expert on. From the shared class reading and vocabulary definitions the student will define the environments: precipitation, temperature, and surface terrain. The student will then fill out the information on their Venn diagram.
8. Jigsaws groups and teach about the assigned environment. During this students will fill out the circles on the Venn diagram that contrasts each environment.
9. Students will turn in individual Venn diagrams for teacher to check for understanding.
10. Students will be able to orally describe Utah's wetlands (e.g., river, lake, stream, and marsh areas where water is a major feature of the environment) forests (e.g., oak, pine, aspen, juniper areas where trees are a major feature of the environment), and deserts (e.g., areas where the lack of water provided an environment where plants needing little water are a major feature of the environment).
11. View interactive PowerPoint on Utah Environments that highlights Wetlands, Deserts, and Forests.
12. View Wetlands poster and fill out the wetlands portion of the Wetlands, Deserts, and Forests worksheet.
13. View Deserts poster and fill out the deserts portion of the Wetlands, Deserts, and Forests worksheet.
14. View Forest poster and fill out the forest portion of the Wetlands, Deserts, and Forests worksheet.
15. Locate on maps examples of areas that have characteristics of wetlands, forests, or deserts in Utah.
16. View an Interactive Power point
17. Define and illustrate the meaning of wetland, desert and forest in science journals.
18. View Map of Utah that has environments defined by annual rainfall.
19. On a blank annual Utah rainfall color in the appropriate environments to show where environments are.
20. Based upon information gathered, classify orally areas of Utah that are generally identified as wetlands, forests, or deserts.
21. Students will view many pictures of Utah environments. These pictures will be labeled #1-#10
22. They student will number one to ten in their science notebook. They will then view pictures of environments and will determine and record which environment each picture is showing, in their science journals.
23. Students will then get with a partner and check their findings. If findings do not match up, students will put a question mark over the number.
24. Students will then correct with teacher and numbers with question marks will be answered. Students will tell why the environment is what it is.
25. Identify animals that inhabit the particular environment
26. View posters of Utah environments, notice the animals that are in the 3 posters
27. View PowerPoint on animal adaptations.
28. During PowerPoint have students fill out animal adaptations graphic organizer
29. Review and assess what students have learned throughout the unit.
30. View the video on Utah Environments
31. Complete Graphic Organizer on video to use as a review for final written assessment.
32. Complete a Mid-unit Quiz
33. Complete a Post-Assessment of creating a diorama of their chosen Utah environment. Rubric will be given

The following is a list of resources that will be used throughout the unit.

1. Smart board
2. Document Camera
3. PowerPoint Presentations
4. Utah Environments Venn Diagram
5. Class Shared Reading on Utah Environments.
6. Wetland, Desert, Forest worksheet
7. Computer
8. Annual rainfall Utah map
9. Blank annual rainfall Utah map
10. 10 pictures of Utah environments for students to identify the environment
11. Graphic Organizers
12. Science Journals
13. Utah Environments Video

The unit will be taught in 8 30-minute time periods. Each period will review what we learned last time with a quick 2 to 3 minute review. If the lesson is continuing we will review what we di the previous day to continue the lesson. The class will view Power points as a whole class and we will follow the I do, we do, y’all do, you do model for all of the lessons. The students will then work in small-groups, in pairs, or by themselves during this unit. Students will record information in the science journal and on graphic organizers. Each class period will end with a 2 to 3 minute review of the day’s biggest ideas.

I chose this approach because my team and I have taught this unit for four years now. During this time we have been able to tweak and change what has been needed for the student to understand and master the learning objectives. I have used shelter instruction for my ELL students and special needs students. The students are exposed to written vocabulary words and terms with illustrations that coincide. The lessons will allow movement and partner and small group work as well. This model is effective because it allows the students to view visuals and call upon background of what they have seen in the state that they live.