Outdoor Learning – Build a Biosphere

COOL AUSTRALIA IS A LEADING DIGITAL NOT-FOR-PROFIT EDUCATION PROVIDER. WE SUPPORT OVER 47,000 AUSSIE TEACHERS WITH PROGRAMS THAT INTEGRATE TOPICS SUCH AS SUSTAINABILITY, ETHICS, ABORIGINAL HISTORIES AND CULTURES, HUMAN RIGHTS, ECONOMICS, HEALTH AND WELLBEING ACROSS ALL SUBJECT AREAS ALIGNED TO THE AUSTRALIAN CURRICULUM. CHECK OUT OUR FREE-TO-ACCESS UNITS, LESSONS AND DIGITAL LIBRARIES. SKILL UP AND EMPOWER YOURSELF WITH ONLINE PROFESSIONAL DEVELOPMENT COURSES. CELEBRATE A YEAR OF ACTION WITH ENVIRONMENT WEEK 3. COOL AUSTRALIA WOULD LIKE TO THANK THE ALBERT GEORGE & NANCY CAROLINE YOUNGMAN TRUST – MANAGED BY EQUITY TRUSTEES – FOR THEIR ASSISTANCE WITH THE OUTDOOR LEARNING LESSON SERIES.

Nature provides opportunities for young people to develop their fine and gross motor skills, social and emotional skills, critical thinking and problem-solving skills, communication and language skills, and into their hours but while they do it. It has also been shown to reduce stress levels and support many aspects of physical and mental health. This activity takes a typical lesson outline to map the many benefits for students while meeting the outcomes of the Australian Curriculum.

Time required: 60 minutes

Learning goals: Students discover that the biosphere is made up of the atmosphere (gases), hydrosphere (water) and lithosphere (rocks), all of which interact. They explore what happens to an ecosystem when the balance is upset by human activity, and use data collection techniques to monitor the biosphere. By engaging in scientific inquiry, students develop their knowledge of ideas and concepts and gain understanding of the importance of evidence in formulating and evaluating explanations in the development of scientific ideas. Finally, students will be able to recognise some of the mental, physical and academic benefits of completing classroom activities outside.

Essential question: Why are trees important? Why is it important to receive feedback about your work? How can you give feedback to others in a fair and kind manner? How can you use feedback to improve the quality of your artwork? What are the mental, physical and academic benefits of completing classroom activities outside?

Curriculum Links: National Science General capabilities: Critical and Creative Thinking

Lesson Plan:

PART A. TUTORING IN ACTIVITY

Check students prior to starting activity. Identify students who are confident learners and keep them in a group. Identify students who are not confident learners and keep them in a group. Create a group of mixed learners.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.

Method:

Building your biosphere:

1. Put your container inside the biosphere using sand, mud and soil and add it in your plants.
2. Make the hydroponics by adding in your pond water but be aware not all of your plants are submerged.
3. Put a sheet of floating on the bottom of your biosphere.
4. Fill your container with clay pots.
5. Keep a record of the aquatic and aquatic components that you put in your biosphere.