Sandhill View

Environmental Studies Curriculum Policy

Achieve Aspire Enjoy

Academy Aim

Here at Sandhill View Academy, we aim to securely equip **all** of our students for life beyond school as successful, confident, responsible and respectful citizens. We believe that education provides the key to **social mobility** and our curriculum is designed to build strong foundations in the knowledge, understanding and skills which lead to **academic and personal success**. We want our students to **enjoy** the challenges that learning offers. And ultimately, we want students to '***Know More, Do More and Go Further'***

Our aims are underpinned by a culture of **high aspirations**. Through developing positive relationships, we work towards every individual having a strong belief in their own abilities so that they work hard, build resilience and **achieve** their very best.

Intent

The curriculum includes project-based learning, assemblies and extracurricular activities. We regularly review content to ensure we continue to meet our curriculum aims. The Environmental Studies curriculum is planned to allow students to become immersed in the world they live in and allow them to have personal growth in the skills that are required to be a well-rounded citizen, whilst conducting a range of fieldwork linked to Geography. By completing a range of topics, students build skills that are transferable across all curriculum areas and help them put theory into practice. The Environmental Studies curriculum will enhance pupils' self-confidence, motivation and physical skills through project-based learning. The Environmental Studies curriculum is planned to enable all students to confidently develop knowledge and skills in the following areas:

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- Confidence
- Social awareness
- Environmental awareness
- Physical skills
- Personal qualities
- Key skills
- Health and fitness
- Broaden horizons

The British values of democracy, the rule of law, individual liberty, and mutual respect of those with different faiths and beliefs are taught explicitly and reinforced in the way in which the school operates. We are also explicitly embedding transferable 'Skills Builder' skills such as problem solving, aiming high and teamwork to prepare our students for careers and life after school.

Sequence and structure

Our curriculum is delivered throughout Key Stage 3 (years 7, 8 and 9). It is structured to build on prior knowledge and inform for future learning at KS3 in years 7, 8, and year 9. Each year builds on the skills and techniques gained in the previous year. The topics are taught via project-based learning in which students gain knowledge and skills by working for an extended period to investigate and respond to an authentic, engaging, and complex question, problem, or challenge.

Literacy

We know that students who read well, achieve well. As such all-subject areas are committed to providing regular opportunities to read extensively. In Environmental Studies we have incorporated literacy through using SMART readers, speeches and incorporating the word of the week. We have key vocabulary that are embedded throughout using PUSH and FRAYER models.

KNOW MORE: Our Key Stage 3 Environmental Studies Curriculum includes the following areas of study:

Three year KS3 with 1 hour per week allocated to Environmental Studies.

KS3	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 7	**Outdoor Art (Respect)** Introduction to the forest – health and safety whilst in the forest school, equipment and expectations. Crafting frames – using natural forest material to create picture frame to represent respecting nature, students to make comparisons between respect and lack of respect for natural environments and what that would look like. Creation of dream catchers – what are your dreams for the future? What would be the impact of not respecting the environment on a local,	**Navigation (Location)** What is the history of maps? What are the different types of maps that are available? What makes a successful map? Explore a range of maps and create a criterion of what a good map should contain. Practical skills of how to use a map using a compass. Creation of natural compasses vs professional map compasses. Practical task using compasses to navigate and an orienteering challenge.	**Forest Trails (Biodiversity)** Tree and plant identification (quadrats – link with Science) – use of QR codes for tree identification, create own map to assess and present biodiversity from quadrat use. Habitat mapping – combining understanding of different habitats and what makes a successful map to create a map of the various habitats within the school grounds – providing a foundation report to the biodiversity within the school grounds.	**Poetree (Resilience)** Reflective reading in the forest, based on environmental stories, fables and poems. Learn about famous speakers who have led the 'green revolution'. Creation of stories, speeches and poems to highlight the importance of sustainability.	**Bushcraft (Teamwork)** Development of team work and communication through animal tracking, shelter building, boat creations. The ultimate test will be the 15 minutes to survive challenge which requires students to work together to put all their skills together to create a camp in under 15 minutes.	**Elements of nature (Biodiversity)** Importance of soil – acidity, composition – link to types of plants which could survive, link to safe construction. (potential link with Science for experiment?) Providing nature, a habitat – beetle banks, pond dipping. Camp roundup – closing down for summer – important maintenance to keep habitats alive/prepare for winter.

Commented [MS2]: Mention literacy end points and key vocabulary

Commented [MS3]: Remove all assessment as this will be on your timeline rather than curriculum plan

Commented [MS4R3]: Be overt on the plan what the knowledge is to be achieved. Is it to create a dream catcher or is there important knowledge needed linked to outdoors which would allow them to do that?

Commented [MS5R3]: What are the themes that run through out? These will show how knowledge builds e.g. "The Arts outdoor: Sound of the Forest" " Forest survival: Outdoor first aid"

	national and global scale. How would your dreams look if no one cared?					
Year 8	**Outdoor Music (Recycling)** Sounds of the forest – creating music using the natural environment of the forest school. Use of vegetables to make music eg carrot flute. Creation of wind chime using recycled products. Exploration of impacts of recycling on a local and national level.	**Infiltration investigation (Sustainability)** Investigation into the impact of infiltration in an urban environment. Investigation question: What is the impact of infiltration on urban flood risk? Complete full investigation into infiltration rates around the school grounds.	**UK Land Use (Location)** Exploration of the UK land use. Exploration of historic land use in Sunderland. How is land used within the school grounds? Complete synoptic style assignment which explores land use and production of a report to explain the most appropriate use of that land.	**Spring Awakening (Biodiversity)** Introduction to identifying species — what to look out for, how to be safe 'leave only footprints principle' Mini beast investigation – Investigate the biodiversity of different areas of the school grounds building on knowledge gained from habitat mapping which will provide students with a better understanding of suitable locations to monitor biodiversity.	**Bush crafts (Teamwork)** Fires without trace — building safe campfires. Using fires to make a hot drink – survival methods. Comparison task – Open fires vs Kelly Kettles – environmental impact and speed to survive. Creation of Whittled tools such as marshmallow fork.	**Pigmentree (Resilience)** Japanese Art of Hapa zome – Using plants and cloth to release their natural pigments onto cloth. Create a tablecloth that demonstrates the importance of biodiversity in urban areas.
Year 9	**Outdoor First Aid (Resilience)** Students to learn the basic first aid acronym DRsABCD and be able to perform a full primary survey. Students will be prepared to react to a variety of scenarios and be able to respond appropriately. Students to learn the safe airway position and how to keep a casualty safe until help arrives.	**Camp Hibernation (Biodiversity)** Biodiversity investigation. Students will create two different bird feeders one from natural products and one from recycled products. A comparison will be made using camera traps and students will complete a full report write up to detail, methodology, risk assessment, data collection, data presentation, analysis and	**Working Woods (Sustainability)** Explore the forestry industry within the UK, investigating sustainable wood production and supply in the UK. Students will look at the historic use and compare to present day. Charcoal making will allow students to learn about various woodland management skills being used historically to present day.	**Map it out (Location)** Building on knowledge gained from Y7 (Habitat Mapping) students will create a GIS map of the school grounds and accurately record the various habitats that are found within the school grounds. This will build on their KS3 Journey of assessing biodiversity through various methods and help to create long term data on land use within school grounds.	**Small Mammal investigation (Biodiversity)** Final Biodiversity investigation of KS3 which brings together the skills developed throughout Y7 and Y8. Students will produce a written report assessing the biodiversity of small mammals and make recommendations on how to improve biodiversity of the school grounds based on their knowledge of the habitats within school, existing	**Outdoor Cooking (Teamwork)** Creation of 'Outback Shack' menu where students build on their bush craft skills developed in Y7 and Y8 to create a safe and well structured camp fire in order to cook a variety of simple campfire foods. Students will learn camp fire cooking skills and celebrate their journey in Environmental Studies at KS3.

Commented [MS6]: Does that build on providing nature and habitat in year 7?

Commented [MS7]: Link to natural resources? Bug houses?

Commented [MS8]: How does year 9 build on knowledge gained in 7 and 8?

		overall assessment of bird biodiversity to contribute to the long term study of biodiversity within school.	Creation of own charcoal to be used in future camp fires.		aquatic and avian biodiversity and now small mammal biodiversity.	

DO MORE: Milestone assessment end points Unit specific substantive, and disciplinary knowledge and skill end points are detailed on individual schemes of learning

Commented [MS9]: Add the sentence "Unit specific substantive, and disciplinary knowledge and skill end points are detailed on individual schemes of learning"

Year Group	Basic (Lower Ability End Points)	Clear (Middle Ability End Points)	Detailed (Higher Ability End Points)
7	Students will be able to: Select natural products that have been foraged to use as decoration. Students will be able to: Select natural products that have been foraged to use as decoration. Students can tie a knot with support to create a picture frame and wind chimes. Students can demonstrate some health and safety knowledge with prompts or support. Students are able to describe what natural resources you have used. Identify a range of map features, be able to describe the different map uses and use basic features of a compass to navigate short distances. Participate in Shinrin Yoku, able to describe what some of the environmental challenges of the world. Students will also be able to use their senses to describe what life would be like without nature. Students will also be able to describe what some of the aims of Generation Green are. Identify and record a range of habitats and record with a degree of accuracy on a map. Students will also be able to record a range of species within the habitats to establish overall health of the school habitats. Students will also be able to produce a basic report	Select the most suitable product to use when making dream catchers and photo frames Students will be able to: tie a knot that can be used to create a picture frame and wind chimes. Students can demonstrate some health and safety knowledge. Students are able to describe what natural resources you have used Students will be able to describe the role of different map features such as North arrow, scale and grid references. Students will also be able to use a compass to navigate distances around the school grounds. Students will be able to: accurately use flowcharts to identify all habitats within the school grounds. Students will also produce a detailed map highlighting the range of habitats within the school grounds. Students will also produce a report which provides a foundation report into the health of the school habitats. Explain the challenges faced by the world making reference to local and global challenges. Students will also be able to use their senses to create a piece of poetry or short story to raise environmental awareness to people of their age. Students will	Students will be able to; tie a half clove hitch knot, to create picture frames and wind chimes. Students can demonstrate excellent health and safety knowledge. Students are able to explain why you have used the natural resources chosen. Students will be able to; Produce a variety of decorative art pieces that use a range of natural products that can be used to depict 'Nature's beauty' Students will be able to; explain the role of maps in the wider world and current uses of maps within industry. Students will also be able to take accurate bearings and navigate over long distances using map features and a compass. Students will be able to; identify and locate on an OS map the location and accurately record the type of habitat using flowcharts. Students will also be able to produce an overall evaluation into the health of habitats within the school grounds and provide suitable improvements to aid the health of the school grounds. Identify and locate on an OS map the location and accurately record this to provide a long-term study of the urban habitats within the school grounds. In addition to the above, students will be able to; produce a poem based on their reflective reading, current surroundings and own personal beliefs. Explain the challenges faced by the world making reference to local and global challenges. Students will also be able to use their senses to create a piece of poetry or short story to raise environmental awareness to people of their age. Students will also be able to describe all 5 aims of Generation Green. Explain the skills associated with Bushcraft principles, demonstrating a high level of

Year Group	Basic (Lower Ability End Points)	Clear (Middle Ability End Points)	Detailed (Higher Ability End Points)
	into the overall health of the school grounds. Students will be able to: Be able to collect relevant information on the different habitats that are likely to be found in the forest school and wider urban environment. Create a story, speech or poem to express the importance of being 'Generation Green' and explain small changes that young people can do to make a big difference to combatting climate change. Safely identify a range of tools that are used within bushcraft and demonstrate safe use of tools. Students should also be able to state the principles of bushcraft, whilst demonstrating a basic range of skills such as shelter building. Students should also be able to work within a team demonstrating a good communication skills. Safety demonstrate their practical pond surveying skills. Students should also be able to demonstrate how to complete a test of soil texture. Students should also be able to state how wind can impact the environment, and how to complete a basic sun dial.	also be able to describe all 5 aims of Generation Green. In addition to the above, students will be able to: to identify a range of urban habitats using flow charts. In addition to the above, students will be able to: make connections between the story and real-life situations to create own piece of writing. Students will be able to: describe the principles of Bushcraft and demonstrate skills associated with these to a good standard. Students will also work effectively in a team, demonstrating strong communication whilst working in a team. Students will also be able to describe the steps taken to produce a water purification system, providing a basic evaluation of their camps. Correctly identify a range of species found within a small ecosystem environment using an identification card. Students should also be able to describe the texture of the 3 main soil components and how this can be tested. Students should also be able to describe how to tell the time using natural resources.	competency in those practical skills. Students will also be able to effectively work as a team, using excellent communication to execute their group plan. Students will produce both camp shelter and water purification and be able to critically evaluate both projects. Students will demonstrate strong leadership within group activities. Demonstrate a competent performance using soil sampling tools to safety collect an appropriate soil sample to be tested. Students should also be able explain how wind impacts a small-scale ecosystem for both human and physical features.

8	Select natural products that have been foraged to use as musical instruments. Write a methodology to plan out their investigation, collect data from a number of sites, present their data using simple charts and graphs. Able to make valid suggestions for land use diversification in the UK. Identify a range of British invertebrates. Students should also be able to collect data to describe the level of biodiversity within the school grounds. Identify different concepts of bushcraft. Students should also be able to describe the skills needed to safely use bushcraft tools such as safety knife and flint and steel. Students will also demonstrate safe whittling techniques with some support or guidance. Students to have a basic understanding of the laws surrounding knife use and fires in the UK. Students will also be able to work as a team, demonstrating basic communication skills. Demonstrate safe whittling techniques to create a small pen or paintbrush. Students should be able to state the natural dyes that can be extracted from natural products. Students should be able to state strategies to be more sustainable and produce a piece of artwork to represent this.	Select the most suitable product to use when creating musical instruments and wind chimes. Give clear reasons for the methods used, compare data collected from a number of sites, analyse data to enable valid conclusions to be made. Complete industry recognised skills such as soil sampling to complement their project work. Describe the role that a range of invertebrates within an ecosystem. Students should also be able to collect data, present using the most appropriate data presentation method and begin to provide some analysis of the biodiversity of invertebrates within the school grounds. Identify a small range of suitable for whittling. Students will also be able to explain the core concepts of bushcraft. Students will also be able to demonstrate safe use of bushcraft tools such as knives and flint and steel and use them competently. Students will have a clear understanding of the laws surrounding knife use and fires in the UK. Students will also be able to competently work as a team, demonstrating good communication skills. Create a pen and paintbrush to use with the natural dyes they have extracted from natural products. Students should also be able to describe what biodiversity is and the importance of this for urban sustainability.	Evaluate their successes at building a wind chime and be able to use this to design more advanced chime. Give clear reasons for the methods used, compare data collected from a number of sites, analyse data to enable valid conclusions to be made. Explain the suggestions made for their land use recommendation report that are suitable and relevant to the assignment brief. Explain the importance of protecting invertebrates within an ecosystem. Students should also be able to provide a detailed analysis, comprehensive conclusion and provide an evaluation on their investigation. Explain the skills needed for bushcraft concepts of whittling and fire starting. Students will also be able to explain the UK knife law and impacts of improper use of knives. Students will also be able to competently work as a team, demonstrating excellent communication skills. Explain the impact of their future sustainability plans that benefit an urban environment. Suggestions will be relevant to young people and to the local area of Sunderland.

9	Identify who to call in an emergency and able to describe the acronym DR ABC. Able to demonstrate safe working practices, team work and communication skills in most tasks. Able to place a partner into the recovery position, with some support. Able to complete a full and thorough primary survey with support. Identify different bird and mammal species using a guide. Students should also be able to produce a basic report which details what has been done in the investigation and demonstrates the results of the investigation. Describe how woodlands are managed and maintained within the UK. Students will also be able to describe the simple stages of charcoal production. Students should also be able to produce a basic social media post to promote the production of charcoal. Identify mammal species within the UK. Students should also understand the need to record mammals in real life examples eg phase 1 habitat surveys. Students should be able to produce a basic bar chart to demonstrate biodiversity. State the uses of GIS and describe why GIS is useful in monitoring biodiversity or change over time. Students will also be able to identify a range of habitats that are found within school grounds. Students will be able to design and build a GIS map with support. Students will be able to use their GIS map to collect data on the biodiversity of the school grounds. Students can plot some habitats with some inaccuracies. Produce a basic logo and company name with basic research on sustainable food and low food miles. Students will be	Describe the acronym DR ABC, able to demonstrate safe working practices, excellent team work and communication skills. Able to place a partner into the recovery position. Able to complete a full and thorough primary survey with some support. Complete a bar chart to record the species that are found in the forest school. Students should also be able to begin to evaluate the success or limitations to the investigation in their written report. Explain how charcoal is created referring to the management methods that make it sustainable. Be able to start and maintain a fire demonstrating safe handling practices. Students should also be able to create a promotional post to highlight sustainable charcoal production. Describe the process of an investigation and describe what mammals are found within the forest school. Students should also be able to explain why habitat surveys are completed. Students will be able to plot and produce detailed graphs and use biodiversity indices to determine biodiversity of small mammals. Describe the uses of GIS and explain why GIS is useful in monitoring biodiversity or change over time. Students will also be able to identify a range of habitats that are found within school grounds. Students will be able to design and build a GIS map. Students will be able to use their GIS map to collect data on the biodiversity of the school grounds. Students can plot some habitats with minimal inaccuracies. Demonstrate a good knowledge of their costings of their menu with realistic monetary values attributed to each product.	Explain the acronym DR ABC. Students will be able to demonstrate safe working practices, excellent team work and communication skills. They will also be able to place a partner into the recovery position and explain in what scenarios this would be needed. They will be able to complete a full and thorough primary survey. They will be able to react to real world scenarios providing a commentary of what they are doing and why. Calculate the biodiversity index of the forest school and use graph skills to plot and record this data. Students should also be able to make recommendations for future investigations and suggestions of how to improve biodiversity within the school grounds. Explain the importance of sustainable woodland management in the production of charcoal. Students should also be able to explain the importance of fire management to ensure a safe and controlled fire. Complete a detailed analysis of the data that has been collected, to evaluate the current state of biodiversity within the school grounds. Student should then be able to explain what could be done to improve this biodiversity. Students will be able to accurately produce detailed graphs and use biodiversity indices to evaluate the small mammal population of the school grounds. Explain the uses of GIS and evaluate whether GIS is useful in monitoring biodiversity or change over time. Students will also be able to identify a range of habitats that are found within school grounds. Students will be able to design and build a GIS map with support. Students will be able to use their GIS map to collect data on the biodiversity of the school grounds. Students will be able to accurately plot a range of habitats within the school grounds. Demonstrate a strong understanding of the required investment to get their outdoor food shack into business, making logical and reasoned suggestions to their food choices. Students will demonstrate strong leadership during presentation and cooking practical.

	able to make some contributions to the group presentation. Students should also be able to make contributions to the execution of their outdoor food menu.	Students will make valid and logical suggestions during the group presentation, explaining how their menu meets low food miles and supports sustainable food production.	

GO FURTHER: Skills Builder

We aim to explicitly embed transferable 'Skills Builder' skills such as problem solving, aiming high and teamwork to prepare our students for higher education and employability skills for the future. This year in Environmental Studies we will focus on **TEAMWORK** including group decision making/recognising the value of others. **PROBLEM SOLVING** by exploring complex problems by analysing cause and effect and understanding through this through research. Furthermore, we want our students to **AIM HIGH** by setting goals, prioritising tasks and involving others.

How does our Curriculum cater for students with SEND?

Sandhill View is an inclusive academy where every child is valued and respected. We are committed to the inclusion, progress and independence of all our students, including those with SEN. We work to support our students to make progress in their learning, their emotional and social development and their independence. We actively work to support the learning and needs of all members of our community.

A child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision to be made that is additional to or different from that made generally for other children or young people of the same age. (CoP 2015, p16)

Teachers are responsible for the progress of ALL students in their class and high-quality teaching is carefully planned; this is the first step in supporting students who may have SEND. All students are challenged to do their very best and all students at the Academy are expected to make at least good progress.

Specific approaches which are used within the curriculum areas include:

- Pairing students to allow inclusion
- Resources are accessible yet challenging
- Where appropriate support from additional adults is planned to scaffold students learning
- Hands on practical tasks.

How does our curriculum cater for disadvantaged students and those from minority groups?

As a school serving an area with high levels of deprivation, we work tirelessly to raise the attainment for all students and to close any gaps that exist due to social contexts. The deliberate allocation of funding and resources has ensured that attainment gaps are closing in our drive to ensure that all pupils are equally successful when they leave the Academy. More specifically within the Environmental Studies department, we;

- Work to identify barriers, interests and what might help each pupil make the next steps in learning by using lead practitioner research and actions to support.
- Provide students with all materials to reduce financial burden on families.

How do we make sure that our curriculum is implemented effectively?

- The Curriculum Lead is responsible for designing the Environmental Studies curriculum and monitoring implementation.
- Monitoring is validated by senior leaders.
- Staff have regular access to professional development/training to ensure that curriculum requirements are met and subject knowledge developed.
- Curriculum resources are selected carefully and reviewed regularly.

How do we make sure our curriculum is having the desired impact?

- Session observations
- Learning walks for KS3 based upon departmental priorities
- Regular feedback from teaching staff during department meetings
- Regular feedback from Middle Leaders during curriculum meetings
- Pupil Surveys
- Parental feedback