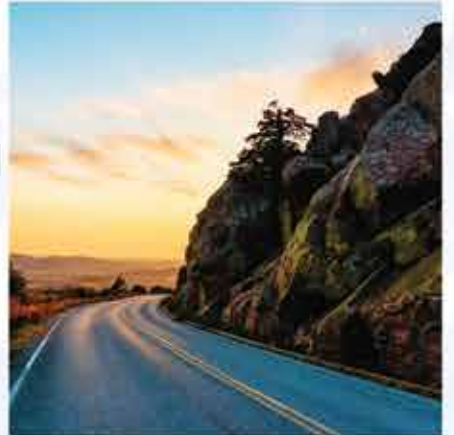


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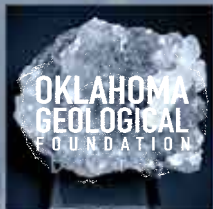
ANNUAL

THE OKLAHOMA GEOLOGICAL FOUNDATION

REPORT



OGF



IMPACTS EDUCATION!

Our hands-on interactive workshops equip teachers
to bring engaging
Earth science lessons to their classroom.



TABLE OF CONTENTS

2	Letter from the Chairman
3-4	Vision for the Future
5	The EveryDay Earth and STEM Outreach Program
6	Supporting Earth Science Education
7	GeoKIDS
8	The Larry Lunardi Rock, Mineral, and Fossil Collections
9	OGF Awards Banquet
10-12	OGF Grants, Scholarships, & Awards
13	OGF Legends Award Dinner / Christmas Reception
14-15	Foundation Investment Summary
16-17	Donors
18-19	Legends
20	Rocks & Swing Fore Stem

A LETTER FROM THE CHAIRMAN

Dear Donors and Friends,



The 2021 Annual Report provides the Oklahoma Geological Foundation's Directors an opportunity to share with our donors and friends the growth and accomplishments of the Foundation. But more importantly, the Annual Report allows us the opportunity to showcase the students, teachers, and schools that have directly benefited from all the gifts given to the Foundation from you, our donors. The 2021 Annual Report is dedicated to your generosity, your passion, and your continued commitment to students and teachers of Oklahoma.

Thanks to you, the Oklahoma Geological Foundation celebrated several significant milestones during 2021. For the first time in its history, as of

December 31st, the Foundation's total assets exceeded three million dollars. Over the last 10 years, including 2021, the Foundation has funded nearly one and a half million dollars for grants, scholarships, and programs to students, teachers, and schools in Oklahoma.

The Annual Rocks & Swing Fore STEM Fundraiser was again a terrific success, with net revenues for auction items exceeding those in 2020. All funds raised were returned directly to the Foundation's STEM programs. The 2021 Financial Report is included in this Annual Report.

In spite of the COVID pandemic, which disrupted student learning and education not only in 2020, but in 2021, the Foundation continued to provide funds for students and teachers through its grant and scholarship programs. The Annual Report provides a detailed review of the many grants, scholarships, and programs the Foundation funded in 2021. Besides the traditional awards, the Foundation continues to expand its funding opportunities with other educational organizations, like the Girl Scouts, the Oklahoma Geological Survey, Keystone Adventure School, and Rose State College.

The Foundation's Rock Mineral & Fossil Collection Program has impacted over 90,000 students and 450 teachers .

As you review the report, you will see a broad and diverse group of funding accomplishments by the Foundation that were made possible from your generous gifts. One of the goals of the Directors is to continue the diverse nature of funding throughout Oklahoma, ensuring that every student has educational opportunities available to them.

Most all the Foundation's programs are designed to impact large numbers of students and teachers. For example, the Larry Lunardi & Foundation's Rock Mineral & Fossil Collection Program has impacted over 90,000 students and 450 teachers since inception. As you review the Foundation's fundings in 2021, and prior years, you will see the Foundation, through your endowments, have truly made a significant impact on Earth Science education in Oklahoma.

Finally, I would like to share part of a thank you note from a student who is working on a Masters of Geoscience degree and is the recipient of a Foundation Graduate Fellowship Grant. "...I had no idea the extent and seriousness of the OGF's support for education in Oklahoma and on behalf of all STEM educators and students who love science and who will love science because of these awards. **THANK YOU!!**"

As you can see from this report, your gifts do make a difference in the lives and careers of the students the Foundation supports. The part you play in the success of the Oklahoma Geological Foundation is extremely important and your commitment to support the many students and teachers across Oklahoma cannot be overstated. Working together, we are building for the future through education of our students.

Warm and personal regards,
Thomas C. Cronin

OKLAHOMA GEOLOGICAL FOUNDATION

“VISION FOR THE FUTURE”

In 1993, a group of Oklahoma geologists had the foresight and desire to promote Earth Science programs within the Oklahoma school systems. Since 1996, the Oklahoma Geological Foundation has been an instrumental source of funding that directly benefits many Earth Science programs. From the beginning, the Oklahoma Geological Foundation has funded Grants on an annual basis to students in elementary, middle, and high schools, and to fund scholarships to students enrolled in undergraduate and graduate programs in colleges and universities. The Foundation actively promotes numerous programs that support teachers and educational institutions in Oklahoma.

Currently, the Foundation has twenty programs available to encourage the participation in the Earth Sciences.

As listed below with the dates of inception, they include:

- 1). **The Frederick H. & Lois M. Kate Award (2006)**
- 2). **The Suzanne Takken Memorial Award (2006)**
- 3). **The Beth Cronin Elementary School Program (2006)**
- 4). **Kenneth Stewart Cronin Lecture Series Program (2006)**
- 5). **OGF Excellence in Earth Science Education Awards Program (2006)**
- 6). **The Frederick H. & Lois M. Kate EESE Award (2006)**
- 7). **Herbert G. & Shirley A. Davis OSU Geology Scholarship Program (2007)**
- 8). **The John Gatchell Earth Science Teaching Program (2008)**
- 9). **The Philip Boyle Foundation & The OGF's School Program (2008)**
- 10). **The Charles E. Branham Geological Library Program (2010)**
- 11). **The OGF Summer Field Camp Grants Program (2011)**
- 12). **Oklahoma Geological Foundation School Grants (2011)**
- 13). **Lance Ruffel & OGF Innovations in Earth Science Education Program (2012)**
- 14). **Shirley A. Davis Program from Earth Science Education (2013)**
- 15). **F.M. Black Summer Field Camp Grant (2013)**
- 16). **William A. Clement Earth Science for Guthrie Middle & High Schools (2014)**
- 17). **Robert W. & Jo Ann Waring Memorial Scholarship Program (2015)**
- 18). **The Oklahoma Geological Foundation STEM Program (2017)**
- 19). **The Larry Lunardi and the OGF's Rock, Mineral, and Fossil Collection Program (2018)**
- 20). **David G. & Janet G. Campbell & the OGF's Native American Scholarship Program (2018)**

Funds from the Oklahoma Geological Foundation's Programs are being used to educate, train, and prepare students for the future. The Foundation Directors are fully committed to providing the Geoscience educational needs for teachers and institutions in Oklahoma.

*"To be an over achiever, you
have to be an over believer"*

Dabo Swinney

Since inception, the Mission of the Oklahoma Geological Foundation has been to implement a model of "Excellence in Earth Science Education." With the help and support of the Foundation, this model challenges students and teachers to make Earth Science education a priority. The Foundation's "Mission" is divided into the following Directives:

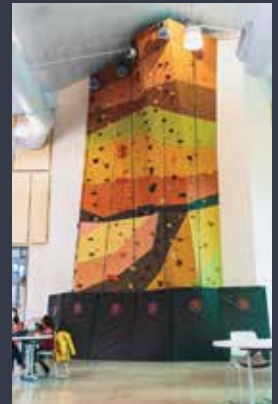
- 1). Motivate and provide technical support for students who attend elementary, middle, and high schools within Oklahoma and who participate in a Geological or Earth Science curriculum.
- 2). Promote and grant financial support to teachers and schools throughout Oklahoma that conduct programs in the Geological Sciences.
- 3). Facilitate and aid financially students who: (a) attend colleges and universities in Oklahoma and major in the Geological Sciences, with the goal of obtaining an undergraduate or graduate degree in those fields of study, and (b) students who plan to pursue a career in the Earth Sciences.
- 4). Provide funding for worthy, scientific endeavours that are conducted by other organizations that promote the Geological Sciences in Oklahoma.
- 5). Acknowledge and honor certain Professionals that are employed in businesses affiliated with the Geological Sciences, and who have made or continue to make significant contributions to the profession and their communities.

GIRL SCOUTS WESTERN OKLAHOMA CAMP TRIVERA STEM FACILITY

The Girl Scouts Western Oklahoma Camp Trivera is a first-of-its-kind urban STEM Camp that opened in the fall of 2020. It is located just east of the Oklahoma City Zoo and Botanical Gardens.

Working with the Property Task Force Team for the Girl Scouts Western Oklahoma, the Oklahoma Geological Foundation helped design and develop a rock-climbing wall. Participants are able to utilize their geological knowledge with the use of corresponding fossils and the geologic time-scale while climbing the rock wall. This thirty-foot tall exhibit is located in the Inasmuch Foundation's Gathering Hall and has proven to be the Girl Scouts favorite activity.

In partnership, the Oklahoma Geological Foundation provides two Rock, Mineral, and Fossil Collections for the Girl Scouts to use in their STEM Programs. The Foundation will maintain an active role and association with the Girl Scouts Western Oklahoma.



Since December 1993, the Oklahoma Geological Foundation has been a major Supporter of Earth Science education and the Science, Technology, Engineering, and Mathematics, (STEM) Outreach Program in Oklahoma.

Some of the Foundation's existing STEM Outreach Programs include:

- ◆ An Earth Science related teacher program called "More! Rocks in Your Head"
- ◆ The distribution of Rock, Mineral, & Fossil Collections to Oklahoma schools
- ◆ Foundation Annual Awards banquets honoring teachers, students, & schools
- ◆ Educational banquets recognizing Oklahoma's Legends in the Petroleum Industry
- ◆ EveryDay Earth

*"Tell me and I forget.
Teach me and I remember.
Involve me and I learn"*

Benjamin Franklin

THE EVERYDAY EARTH & STEM OUTREACH PROGRAM

The EveryDay Earth Program was established in 2017 by the Oklahoma Geological Foundation as a joint venture with Esteem Interactive Learning and other sponsoring partners. This program is designed to provide Earth Science educational material in an online format that students will enjoy. It is presented in a light narrative that filters in multiple lessons for the students and teachers to explore aspects of the Earth's hydrosphere, geosphere, biosphere, and atmosphere. This is accomplished by using localities in Oklahoma and surrounding areas as the backdrop scenery for the study of the Earth Sciences. The Program contains an accumulation of videos and interactive lessons thus allowing students to participate in scientific investigations on screen.

The Program will consist of ten stand-alone Missions with each being an impactful product delivered at no charge to sponsored schools. The first four Missions are currently online in which the students are able to investigate the hydrosphere, weathering and erosion, minerals, igneous rocks, volcanoes, and sedimentary and metamorphic rocks. The EveryDay Earth Program is designed to be used as self-directed learning by teacher-led or by parents of homeschooled children.

The target audience for the EveryDay Earth Program is 4th through 8th grade students and it directly follows the Next Generation Science Standards as well as the Oklahoma Academic Standards for Science.

Along with the Oklahoma Geological Foundation, other supporting partners include: Jerome Westheimer Family Foundation, Devon Energy, Chesapeake Energy, Echo Energy, University of Oklahoma Department of Geosciences, Halliburton, Pick and Hammer Club, and Directors of the Foundation.

"My daughters and I just finished our first lesson. It is such a fun way to learn. After the lesson, my 8-year-old daughter said, "this is the best science lesson I ever had!" Thank you for sharing this knowledge with us struggling home teachers. So happy to have found this hidden gem."

Eddie (homeschooler Dad)

SUPPORTING EARTH SCIENCE EDUCATION FOR OKLAHOMA SCHOOLS, TEACHERS, AND STUDENTS

The Oklahoma Geological Foundation is extremely proud of the number of students and teachers directly impacted by the Foundation's many Programs and Grants. When a teacher or educational facility applies for funding, the Foundation formally asks the applicant for an estimate on the number of students that are affected as well as how many teachers are involved. The numbers given to the Foundation are remarkable.

ROCK, MINERAL, & FOSSIL COLLECTIONS

One Foundation initiative that has had an incredible influence on students and teachers throughout Oklahoma, is the Rock, Mineral, and Fossil Collection Program.

In April 2015, the Foundation, under the direction and leadership of Larry Lunardi, developed a program to supplement Mr. Lunardi's middle school Earth Science teaching model. Mr. Lunardi volunteers his time to assist instructors as they teach Earth Science education to their students. This Program provides a diverse collection of museum quality rocks, minerals, and fossils to Oklahoma based schools to supplement their Earth Science education program. These collections allow the instructors the ability to teach the Earth Sciences with actual rocks, minerals, and fossils, which is a direct learning benefit for the students. As of December 31, 2019, the Foundation has distributed 149 collections which has had a direct effect on approximately 75,000 students and involving over 1,400 teachers!

As stated earlier, these numbers are provided to the Foundation by the teachers who have requested and received these Collections.

UNIVERSITY GEOLOGY FIELD CAMPS

Since 2014, the Foundation has provided funding for 150 college level students to attend summer geology field camps. These students have been selected from Oklahoma State University, University of Oklahoma, and Tulsa University. A total of \$115,000 has been distributed to students attending Geology Field Camp since inception of the Program.

OKLAHOMA TEACHER WORKSHOPS

Annually, since 2011, the Oklahoma Geological Foundation has sponsored and participated in a full-day workshop for Oklahoma Earth Science teachers called: "More! Rocks in Your Head" and continues to present the workshop on at least a yearly basis. This

"Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important!"

Bill Gates

seminar is being taught by Richard Opalka, a degreed geologist and former Earth Science teacher at Edmond North High School. The workshop covers a full scope of Earth Science topics and skills for the teachers, who can apply this knowledge back to the classroom making Earth Science a memorable experience for the students. Topics covered include environmental processes, rock formation, mineral identification, geologic landforms, mapping, and the formation of fossil fuels. one of the best workshops I have been to. The information will be used in my classroom."

Approximately 450 Earth Science teachers have participated in a total of ten workshops over the past eight years.

SAINT ELIZABETH ANN SETON CATHOLIC SCHOOL

Saint Elizabeth Ann Seton Catholic School opened a state-of-the-art science laboratory in the fall of 2006 to facilitate the teaching of pre-K through 8th grade Earth Science Education. Since 2007, the Oklahoma Geological Foundation has funded various Grants to help supply equipment for the lab and to establish a first-class Earth Science Program. This facility is used in the education of approximately 450 students annually. The entire 7th grade year is solely dedicated to the study of the Earth Sciences.

To date, the Foundation has funded Grants totaling over \$80,000 to the school. Funding is primarily through the Beth Cronin Elementary School Endowment Program. A Grant of \$4,000 was distributed in 2020 for the purchase of replacement materials for science (FOSS) kits for the study of Earth, Life, and Physical Sciences and to continue the school's advancement of technology in teaching Earth Science education.

GUTHRIE HIGH SCHOOL

The Oklahoma Geological Foundation has been providing Grants to the Guthrie High School system since 2014. Funds from these Grants have been used to purchase school supplies, laboratory equipment, textbooks, Chromebooks, charging cart for storage, and Earth Science demonstration models to expand the Earth Science classes. In 2019, the Foundation provided a Grant of \$3,875 to purchase lab equipment, demos, and lab kits for the Earth and Environment Science class. Funding for this Grant is primarily through the William A. Clement Guthrie Schools Grant.

GeoKIDS:

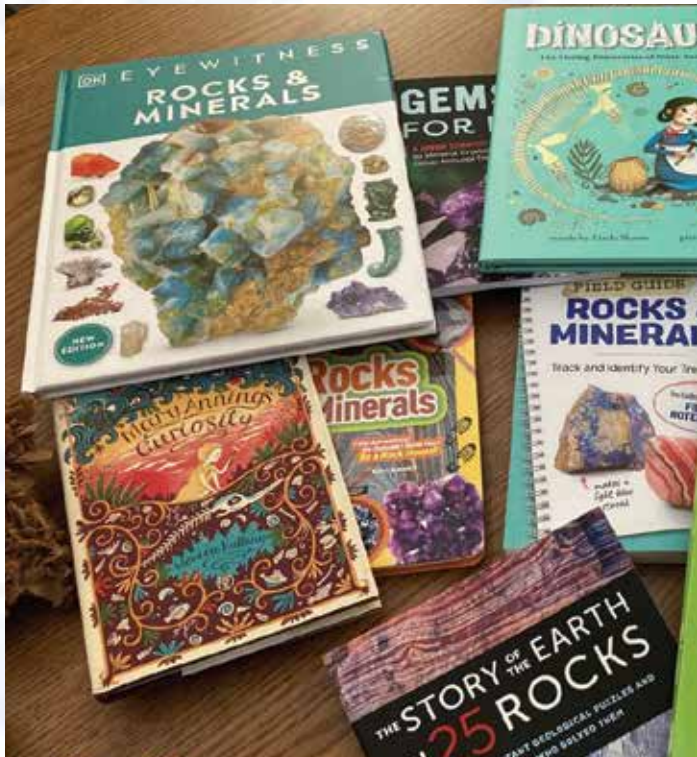
KIDS INVESTIGATING & DOING SCIENCE

GeoKIDS is a program coordinated by Dr. Molly Yunker of the Oklahoma Geological Survey.

The purpose of the program is to distribute starter collection kits for students to study and learn about. Each kit consists of 9 to 13 rock, mineral, and fossil specimens along with a classroom outreach program.

This popular program is funded by the Oklahoma Geological Foundation to not only students in Oklahoma schools, but to teachers, other Oklahoma children, parents, and visitors to public libraries throughout the State. Since 2018, nearly 2,000 GeoKIDS kits have been disseminated to Oklahoma students.

During this year, 454 kits were distributed through funds of \$6,345 from the Oklahoma Geological Foundation.



**Students
get to
keep the
collections!**

THE LARRY LUNARDI AND THE OKLAHOMA GEOLOGICAL FOUNDATION

ROCK, MINERAL, AND FOSSIL COLLECTION PROGRAM

In 2015, under the direction of Oklahoma Geological Foundation Director Larry Lunardi, the OGF began providing a diverse collection of museum quality rocks, minerals, and fossils to Oklahoma based schools. This program was well received by students and teachers with overwhelming positive comments and support. As a result, in 2018, the Larry Lunardi & the Oklahoma Geological Foundation's Rock Mineral, and Fossil Collection Program was officially established.

As a testimonial to this success, a total of 200 Collections have been distributed to Oklahoma schools in a little less than four years. Since inception the program has directly impacted over 90,000 students and involved over 450 teachers

With continued support and funding from the Foundation along with Larry Lunardi's expertise, the ultimate goal is to have a Collection in every school in Oklahoma.

"Dear Mr. Lunardi"

I appreciate how you came to our school, and it was amazing how you have so many rocks and minerals. I didn't know some, but now I do. Thank you so much for donating them to us. You are welcome to our school anytime."

Wendy
San Miguel School

Each year, the Oklahoma Geological Foundation conducts the "Annual Awards Banquet" to Honor and recognize students, teachers, and educational institutions by annually providing financial grants, scholarships, and awards. With Twenty different programs available for financial support.

Throughout Oklahoma, students, teachers, and their families are invited to attend the banquet. Each year the banquet continues to grow and during this time, the recipients and their families are able to meet casually with the Foundation's Directors and Donors along with other peers from various educational facilities.

In 2021, the Foundation provided \$74,000 in funding for grants, awards, and scholarships.

*"I would maintain that
thanks are the highest form
of thought, and that
gratitude is happiness
doubled by wonder"*

G.K. Chesterton

THE OKLAHOMA GEOLOGICAL FOUNDATION ANNUAL AWARDS BANQUET



THANK YOU

FOR SUPPORTING THE FOUNDATION'S
MANY EDUCATIONAL INITIATIVES!

OKLAHOMA GEOLOGICAL FOUNDATION

GRANTS, SCHOLARSHIPS, & AWARDS

HERBERT G. & SHIRLEY A. DAVIS OKLAHOMA STATE UNIVERSITY GEOLOGY SCHOLARSHIP: (\$5,000)

RECIPIENT: KHALID HAJI OMAR (\$2,500)
Oklahoma State University

Thesis: *Removal of mixture of heavy metals from petroleum produced water by dolomite filtration technology*

RECIPIENT: OLUBUKOLA ISHOLA (\$2,500)
Oklahoma State University

Thesis: *"Prediction of flow properties in highly heterogenous porous media"*

THE FREDERICK H. & LOIS M. KATE AWARD: (\$5,000)

RECIPIENT: HANNA MORGAN
University of Oklahoma

Thesis: *"Sedimentology, chemofacies, and stratigraphic architecture of the Lower Cretaceous Burro Canyon Formation, Ninemile Hill, Unaweep Canyon, Colorado"*

THE SUZANNE TAKKEN MEMORIAL AWARD: (\$5,000)

RECIPIENT: ELLA NORVELL
University of Tulsa

Thesis: *"Environmental and Geophysical Methods". Study area is located in Tulsa and West Tulsa Levees A & B, found along the Arkansas River in Oklahoma.*

THE OKLAHOMA GEOLOGICAL FOUNDATION EXCELLENCE IN EARTH SCIENCE EDUCATION AWARDS PROGRAM: (\$500)

RECIPIENT: KEYSTONE ADVENTURE SCHOOL & FARM, EDMOND

Grant: Grant awarded for the purchase of materials to implement an Earth Science-Based curriculum with pre-school through 1st grade program. Will allow Keystone to teach earth science not only in the preschool classroom but to spark interest school-wide. This is a starting point to foster the love of science and pique the student's interest in learning about the scientific world around them.

BETH CRONIN ELEMENTARY SCHOOL PROGRAM: (\$4,735)

RECIPIENT: ST. ELIZABETH ANN SETON CATHOLIC SCHOOL, EDMOND

Grant: In 2021, a grant was awarded for the purchase of replacement materials for "hands on" science kits in the middle school for the Study of Earth Science, Life Science, & Physical Science. The science kits are called FOSS kits. The funds requested are an extenuation of the 2020 grant.

THE OKLAHOMA GEOLOGICAL FOUNDATION SUMMER FIELD CAMP GRANT: (\$5,250)

RECIPIENTS: THREE STUDENTS FROM OKLAHOMA STATE UNIVERSITY AND ELEVEN STUDENTS FROM THE UNIVERSITY OF OKLAHOMA WHO ATTENDED SUMMER FIELD CAMPS.

Grant: Funds from these grants are awarded to undergraduate geology students to supplement 2021 Summer Field Camp expenses. Since 2012, the Foundation has provided financial assistance to over 225 students who have attended Field Camps.

THE LARRY LUNARDI & OKLAHOMA GEOLOGICAL FOUNDATION ROCK MINERAL & FOSSIL COLLECTION PROGRAM: (\$8,800)

RECIPIENTS: OKLAHOMA SCHOOLS, K - 12TH GRADES

Grant: funds will be used to purchase museum quality rocks, minerals & fossils to be put in individual collections for distribution. These collections are distributed to schools and teachers throughout Oklahoma to promote geology and Earth Science education. Since 2015, the Foundation has distributed over 190 Rock, Mineral, and Fossil Collections to Oklahoma schools.

**THE PHILIP BOYLE FOUNDATION & OGF
ELEMENTARY AND SECONDARY SCHOOL
PROGRAM:
(\$2,853)**

RECIPIENT: OKLAHOMA SCHOOLS, K - 12TH GRADES
Grant: Funds will be used to purchase museum quality rocks, minerals & fossils to be put in individual collections for distribution. These collections are distributed to schools and teachers throughout Oklahoma to promote geology and Earth Science education. Since 2015, the Foundation has distributed over 190 Rock, Mineral, and Fossil Collections to schools in Oklahoma.

**THE CHARLES E. BRANHAM LIBRARY
PROGRAM: (\$1,632)**

RECIPIENTS: OKLAHOMA SCHOOLS, K - 12TH GRADES
Grant: Funds will be used to purchase museum quality rocks, minerals & fossils to be put in individual collections for distribution. These collections are distributed to schools and teachers in throughout Oklahoma to promote geology and Earth Science education. Since 2015, the Foundation has distributed over 190 Rock, Mineral, and Fossil Collections to schools in Oklahoma.

**THE SHIRLEY A. DAVIS PROGRAM FOR
EARTH SCIENCE EDUCATION: (\$3,744)**

**RECIPIENT: OKLAHOMA SCHOOLS, K - 12TH
GRADES**

Grant: Funds will be used to purchase museum quality Rocks, Minerals & Fossils to be put in individual Collections for distribution. These Collections are distributed to schools and teachers in throughout Oklahoma to promote geology and Earth Science education. Since 2015, the Foundation has distributed over 190 Rock, Mineral and Fossil Collections to schools in Oklahoma.

GRANTS, SCHOLARSHIPS, & AWARDS

**THE ROBERT W. & JO ANN WARING
MEMORIAL SCHOLARSHIP: (\$1,500)**

RECIPIENT: ALI AL JANABI
Oklahoma State University

Thesis: *Removal of mixture of heavy metals from petroleum produced water by dolomite filtration technology*

RECIPIENT: DYLAN MORTON
Oklahoma State University

Grants: Funds used for thesis research, entitled: *"Detrital Zircon Geochronology and Provenance of the Missourian Cottage Grove Sandstone, Northern Anadarko Basin, Oklahoma."*

**THE LANCE RUFFEL & OKLAHOMA
GEOLOGICAL FOUNDATION
INNOVATIONS IN EARTH SCIENCE
EDUCATION PROGRAM: (\$6,439)**

**RECIPIENT: APPROXIMATELY 40 TEACHERS FROM
MOORE PUBLIC SCHOOLS PARTICIPATED
IN A ONE-DAY WORKSHOP HOSTED BY THE FOUN-
DATION, TITLED "MORE! ROCKS IN YOUR HEAD".**

Grant: Proceeds of the grant funded the workshop. This one-day event is a nationally acclaimed, hands-on workshop, covering a full scope of Earth Science topics and skills for the teachers, who can take these disciplines back to the classroom, making Earth Science a fun and memorable experience for their students. The curricula are taught by educators and volunteers of the Foundation.

**THE OKLAHOMA GEOLOGICAL
FOUNDATION GRANTS: (\$2,000)**

**RECIPIENTS: OKLAHOMA STATE UNIVERSITY
FOUNDATION**

Grants: Geology Student Enrichment Fund. OSU Geology students need financial support to attend online and out-of-classroom opportunities that provide experience extremely beneficial to their placement in graduate school, the industry, or academia following graduation.

**THE JOHN GATCHELL EARTH SCIENCE
TEACHING PROGRAM: (\$2,000)**

RECIPIENT: OKLAHOMA GEOLOGICAL SURVEY

Grant: In 2017, the Foundation provided funds to the Oklahoma Geological Survey to start a program called "GeoKids". "GeoKids" is a program that consists of a traveling Earth Science Library and a starter Rock & Mineral Kit. GeoKIDS 3.0 (a continuation of the existing GeoKIDS programming, for the 3rd iteration). To date, OGF has contributed a total of \$6,345 to the GeoKIDS program (from two other grants).

**THE OKLAHOMA GEOLOGICAL
FOUNDATION GRADUATE FELLOWSHIP
AWARD: (\$5,000)**

RECIPIENT: OLUSEUN SANUADE
Oklahoma State University

Thesis: *"Geophysical imaging of hydrogeological and engineering conditions at dams in Oklahoma"*

GRANTS, SCHOLARSHIPS, & AWARDS

WILLIAM A. CLEMENT GUTHRIE MIDDLE AND HIGH SCHOOL GRANT: (\$5,250)

RECIPIENTS: THREE STUDENTS FROM OKLAHOMA STATE UNIVERSITY, AND ELEVEN STUDENTS FROM UNIVERSITY OF OKLAHOMA WHO ATTENDED SUMMER FIELD CAMPS.

Grant: Funds from these grants are awarded to undergraduate geology students to supplement 2021 Summer Field Camp expenses. Since 2012, the Foundation has provided financial assistance to over 225 students who have attended Field Camps.

THE OKLAHOMA GEOLOGICAL FOUNDATION GRANTS: (\$1,500)

RECIPIENT: ROSE STATE COLLEGE

Grants: Geoscience Service-Learning Student Internships for three students. Students will work closely with faculty at Rose State College to prepare for a conference or conduct a project. This grant helps offset the need for students to focus on their research.

THE OKLAHOMA GEOLOGICAL FOUNDATION **LEGENDS AWARD DINNER & THE CHRISTMAS RECEPTION**

The Directors of the Oklahoma Geological Foundation recognize outstanding men and women who have distinguished themselves by making historical contributions to the geosciences and petroleum industries.

To proudly honor these incredible individuals, the Foundation created and established the "Pioneer Legend", "Historical Legend", and "Living Legend" awards. Since inception, forty-six individuals have been honored by the Foundation at the annual "Legends Award" reception.

2021 Honorees were: Dollie Radler Hall; Dr. Gary F. Stewart; Dr. Norman J. Hyne and Dewey F. Bartlett, Sr.

An established tradition since 2004, the Oklahoma Geological Foundation and its Directors, have invited donors and friends of the Foundation to the **Annual Christmas Holiday Reception**. This reception represents an expression of thanks and appreciation for those responsible for the success and growth of the Foundation.

THE OKLAHOMA GEOLOGICAL FOUNDATION | **2021 HIGHLIGHTS**

- ◆ Approved the addition of two Directors to the OGF Board!
- ◆ Total fund balances exceeded \$3,000,000!
- ◆ Provided over \$74,000 in scholarships and grants!
- ◆ Raised over \$78,000 for STEM Programs!
- ◆ Distributed 21 Rock, Mineral & Fossil Collections to Oklahoma Schools!
- ◆ Provided \$14,500 for 16 students to attend Geology Field Camps!
- ◆ Led a workshop for Earth Science teacher training for the Moore Public School District!
- ◆ Participated in the Oklahoma City Dodgers MVP Field Day Program, which encourages STEM Education and impacted over 10,000 third and fourth grade students in Oklahoma!
- ◆ Honored 4 outstanding geological scientists as Oklahoma Legends!
- ◆ Held an OGF Booth exhibit at AAPG Mid-Continent Section meeting in Tulsa!

"Only by not forgetting the past can we be the master of the future."

Ba Jin

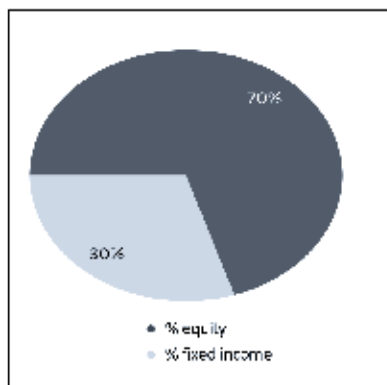
INVESTMENT SUMMARY

PERIOD ENDING DECEMBER 2021

Target Allocation

Current Allocation

Allocation	% of FMV
Equity	73.2%
Large Cap	25.6%
Mid Cap	5.7%
Small Cap	19.3%
International	20.6%
Other Equity	1.9%
Fixed Income	24.8%
Short	3.7%
Intermediate	21.1%
International	0.0%
Cash	2.0%
Total	100.0%



Historical Returns

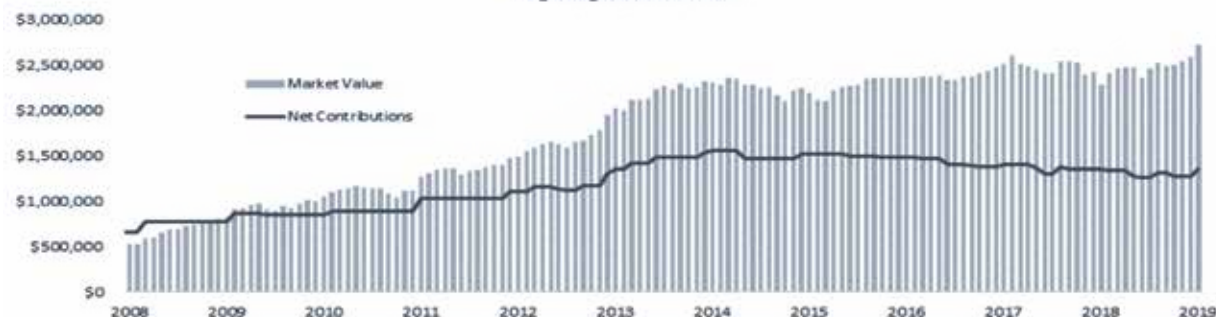
	Trailing 3 Months	Trailing 12 Months	3 Year (annualized)	5 Year (annualized)
OGF	4.3%	15.1%	15.6%	9.5%
Market Returns				
S&P 500	11.0%	28.7%	26.1%	18.5%
Russell 2000	2.1%	14.8%	20.0%	12.0%
MSCI EAFE NR	7.7%	11.3%	13.5%	9.5%
MSCI Em Mkts NR	1.3%	7.5%	10.9%	9.9%
BBG Int Gov/Crdt	-0.6%	-1.4%	3.9%	2.9%
BBG 1-3YK Gov/Crdt	-0.6%	-0.5%	2.3%	1.9%

Annual Returns

Period	Return
2021	15.1%
2020	12.3%
2019	19.5%
2018	7.3%
2017	10.2%

Growth Over Time

Beginning December 2008



*Returns are net of fees. Returns greater than 1 year are annual.

in the preparation of this report. OGF & BancFirst warrants that, to the best of its knowledge, information and belief, the information contained herein is reliable, but does not warrant the accuracy. Past performance does not guarantee future results.

OKLAHOMA GEOLOGICAL FOUNDATION

2021 INVESTMENT OVERVIEW

As of December 31, 2021, the Oklahoma Geological Foundation's collective Investment Portfolio had a fair market value of \$3,034,649. This is an increase of \$340,869 over the previous year balance of \$2,693,780.

This increase was attributable to investment gains of \$403,848 (net of investment management fees) and net withdrawals of -\$63,000. The Portfolio had an asset allocation at year end of 73.2% Equity, 24.8% Fixed Income and 2.0% Cash & Equivalents. Under normal circumstances and Foundation investment policy guidelines, the overall equity allocation will typically range from 60-80% and the fixed income and cash allocation will typically make up the residual, a 20-40% allocation.

The mix of equity strategies in the Portfolio was diversified across domicile (e.g., U.S., developed international and emerging markets), style (growth and value) and size (market capitalization). At year-end, the style composition of the equity portfolio was as follows (rounded):

U.S. Large-Cap Growth	8.5%	U.S. Small-Cap Value	26.4%
U.S. Large-Cap Value	5.1%	Developed International	19.2%
U.S. Large-Cap Core	21.5%	Emerging Markets	9.0%
U.S. Mid-Cap Value	7.7%	Real Estate	2.7%

Performance- Net of Fees

	12 Month	3 Year Annualized	5 Year Annualized	Inception 7/1/2008
The Foundation's Investments	15.1%	15.6%	9.5%	8.0%

The primary strategies within the fixed income allocation at year-end were classified as intermediate-term and short-term, emphasizing investment grade issues. The fixed income portfolio style breakdown at year-end was as follows (rounded):

Intermediate-term Bond	85.1%
Short-term Bond	15.0%

For the year ended December 31, 2021, the Portfolio returned 15.1%, net of investment management fees. This compares to a Subclass Blended Benchmark, weighted by the asset subclasses of the Portfolio, which returned 15.4% over the period. A Class Blended benchmark, comprised of only the S&P 500 Stock Index, Bloomberg Barclays Intermediate Government/Credit Index and the Lipper US Treasury Money Market Index, weighted in accordance to the broad class weights of the Portfolio, returned 20.2%. The table below provides additional performance for the Foundation's Portfolio over various time-frames since inception of July 1, 2008. Since inception, the Portfolio returned 8.0% annualized with net gains, after fees and expenses, of \$2,061,843:

Despite setbacks associated with COVID-19 variants and challenges relating to supply chain disruptions, higher inflation, and labor shortages, the global economy continued its strong recovery in 2021. With this backdrop, the S&P 500 Index (large cap U.S. stocks) generated a return of 28.7% and the Russell 2000 Index (small cap U.S. stocks) gained 14.8%. Within international markets, developed market equities (MSCI EAFE Net Index) increased 11.3% while emerging markets equities (MSCI Emerging Markets Net Index) fell -2.5%. Overall, the Foundation's equity investments returned 22.4% during the year. This was modestly behind the S&P 500 Index for the full year largely due to the portfolio's international allocation, but ahead of the global MSCI All Country World IMI Index return of 18.2%.

Higher yields and a steeper yield curve pressured fixed income returns in 2021. The Foundation's fixed income manager allocation and neutral duration positioning resulted in similar performance to the Bloomberg Intermediate Government/Credit Index, with the portfolio's fixed income investments down -1.5% versus -1.4% for the benchmark.

The Investment Policy is designed to ensure that existing and future funds managed by the Foundation will provide ample annual income for its charitable purposes in perpetuity, regardless of existing economic or market conditions.

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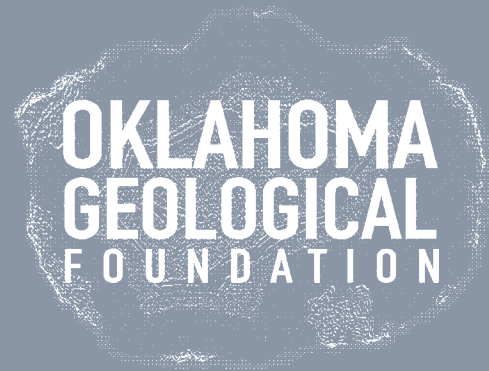
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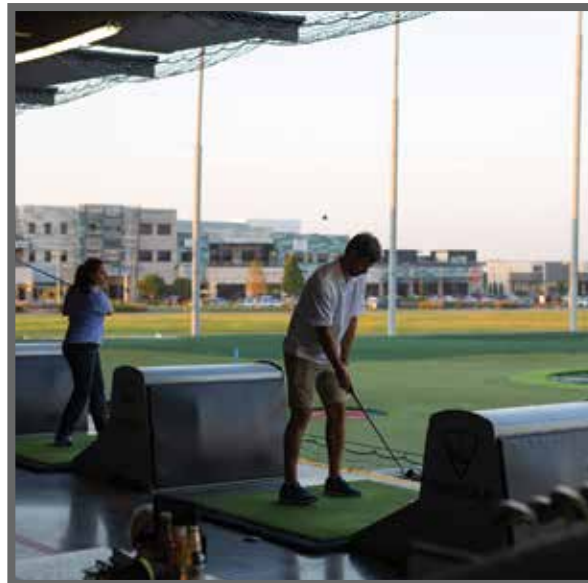
ROCKS & SWING FORE STEM AUCTION

With the success of the inaugural auction in 2019, the Oklahoma Geological Foundation's "Rocks & Swing Fore STEM" auction was held again in 2021. The primary goal of this event is to promote the Foundation as a "family connection" to the organization.



The fundraiser consists of an online and silent auction of minerals, fossils, and artwork. The event is held at Topgolf driving range with a dinner buffet that is fun for all ages while raising money for the "Rocks & Swing Fore STEM".

We are thrilled to report that the foundation raised over \$22,000 for STEM in 2021.



OCF

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