



Title: EUREKA! Bingo			
Author: Kathy Rusert Acorn High School Mena, AR			
Course: Science, Careers, Library Media, Language Arts		Duration: One 45 minute class period	
Grade Level(s): 6-8			
Objective: Students will learn about jobs in the Oil and Natural Gas Industry.			
Summary of Lesson: Students will use the internet to learn about careers in Oil and Natural Gas. Twenty-four careers will be studied more closely by playing Eureka Bingo.			
Arkansas Standards:			
Subject:	Grade Level(s):	Code:	Standard:
Science	8	ESS.8.8.11	Investigate careers related to changes in the Earth. (may want to link careers from other areas as well)
Language Arts	6-8	RI.6.2 RI.7.2 RI.8.2	Examine a grade-appropriate informational text. <ul style="list-style-type: none"> ● Provide an objective summary of the text. ● Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas.
Library Media	6-8	PG.8.6.1 PG.8.7.1 PG.8.8.1	Demonstrate knowledge gained from reading self-selected <ul style="list-style-type: none"> ● informational texts ● literary texts ● multicultural texts
Teacher Enhancement Support Systems: Managing Classroom Procedures, Managing Student Behavior, Engaging Students in Learning			

**Instructional Strategies and Practices:**

Identifying Similarities and Differences, Practice, Setting Objectives and Providing Feedback, Game, Technology

Bloom's Level: *(Highest Level Only)*

Analyzing

Materials and Resources:

- Bingo clue sheet
- Computer or iPad
- Game boards
- Washable markers or grease pencils

Formative Assessment:

Teacher monitoring

Teaching Notes:

Duplicate game boards and laminate for multiple uses.

Student Activity:

1. Students will study oil and natural gas careers using classroom computers or iPads. At least 24 careers with definitions will be identified to use in the Eureka! Bingo Game.
2. Provide students with the career names and clues prior to playing the game. Allow time to study the careers. (See Student Worksheet)
3. Distribute game boards to students then read the job description. Students must recognize the job description without the aid of the clue sheet.
4. Students will mark an X over the career when given the description. They should shout "Eureka!" when they have 5 in a row horizontally, vertically or diagonally.

EUREKA Bingo Clues

1. These specialists use vibrations to help them determine where to drill for oil and natural gas. (seismic operator)
2. When a construction site is active, this person performs a wide variety of tasks, including operation of equipment, installing and repairing equipment and lines, and manual labor. (roustabout)
3. Responsible for directing and coordinating work and activities associated with well drilling fluid systems and equipment, this person works outdoors in all seasons. (derrickhand)



4. This scientist determines the best location for drilling oil and natural gas based on analysis of underground structures.(geologist)
5. Driving trucks is this employee's main job. (swamper)
6. Setting up and operating a variety of drill equipment to remove petroleum products from the earth is the main part of this person's job. (rig operator)
7. This engineer uses math, physics, chemistry and technology to design products or make processes more processes more cost effective or create new products. (chemical engineer)
8. This specialist devises methods to improve oil and natural gas well production and oversees drilling activities. (petroleum engineer)
9. This is an entry-level position to aid seismic operators and requires working in all types of weather to create and monitor small earthquakes using explosive and other energy sources. (jughound)
10. A professional who notes the conditions surrounding the construction of a well is this person's job. (mudlogger)
11. This professional confirms land ownership and negotiates agreements with land owners for drilling or production rights. (landman)
12. Reading blueprints, installing industrial equipment, troubleshooting and repairing machinery are parts of this person's job description. (millwright)
13. This maintenance worker is responsible for maintaining and repairing industrial machinery in the field. (industrial machinery mechanic)
14. This person is responsible for operating all cranes, bulldozers, dump trucks and other types of heavy equipment. (heavy equipment operator.)
15. This position requires two levels of certification: diving and welding. (deep sea welder)
16. This person's drawings provide visual guidelines to show engineers how to construct oil and gas well structures. (draftsman)
17. This extremely hazardous job requires training to extinguish and cap blazing eruptive oil well blowouts on land or in the ocean. (oil well firefighter)



18. This person uses pressurized water and a vacuum system to excavate around utilities and pipelines.
(hydrovac operator)
19. The job of this person is to safely and efficiently perform manual labor tasks on the drilling floor under the direction of the driller. (floorhand)
20. Analyzing oil analysis reports, interpreting data, and make recommendations based on up-to-the minute data is this person's responsibility. (data analyst)
21. This specialist designs and aids with construction for offshore platform operations.
(mechanical engineer)
22. Supervising and coordinating construction activities to insure that work is completed properly in a timely manner is this person's job. (civil structural superintendent)
23. Exception writing and public relations skills are necessary for this employee who is responsible for marketing programs and communications strategies. (communications specialist)
24. State of the art technology is used by this technician to allow pipeline systems to be operated from a single control center to maximize safety and efficiency. (control center operator)



Game Board #1

Landman	Seismic Operator	Jughound	Roustabout	Millwright
Derrickhand	Mudlogger	Geologist	Floorhand	Swamper
Petroleum Engineer	Rig Operator	FREE	Draftsman	Chemical Engineer
Mechanical Engineer	Civil Structural Superintendent	Deep Sea Welder	Hydrovac Operator	Oil Well Firefighter
Data Analyst	Heavy Equipment Operator	Communications Specialist	Central Control Operator	Industrial Machinery Mechanic

Game Board #2

Landman	Swamper	Rig Operator	Geologist	Mechanical Engineer
Deep Sea Welder	Seismic Operator	Oil Well Firefighter	Industrial Machinery Mechanic	Millwright
Roustabout	Data Analyst	FREE	Jughound	Draftsman
Civil Structural Superintendent	Central Control Operator	Derrickhand	Heavy Equipment Operator	Hydrovac Operator
Floorhand	Communications Specialist	Chemical Engineer	Mudlogger	Petroleum Engineer



Game Board #3

Oil Well Firefighter	Roustabout	Jughound	Deep Sea Welder	Civil Structural Superintendent
Mechanical Engineer	Petroleum Engineer	Swamper	Communications Specialist	Millwright
Hydrovac Operator	Geologist	FREE	Draftsman	Floorhand
Central Control Operator	Chemical Engineer	Industrial Machinery Mechanic	Derrickhand	Landman
Rig Operator	Heavy Equipment Operator	Seismic Operator	Mudlogger	Data Analyst

Game Board #4

Deep Sea Welder	Derrickhand	Communications Specialist	Hydrovac Operator	Petroleum Engineer
Chemical Engineer	Landman	Draftsman	Industrial Machinery Mechanic	Data Analyst
Heavy Equipment Operator	Floorhand	FREE	Mechanical Engineer	Oil Well Firefighter
Roustabout	Mudlogger	Jughound	Central Control Operator	Seismic Operator
Millwright	Civil Structural Superintendent	Geologist	Rig Operator	Swamper



Game Board #5

Hydrovac Operator	Derrickhand	Draftsman	Oil Well Firefighter	Floorhand
Mudlogger	Central Control Operator	Deep Sea Welder	Geologist	Millwright
Industrial Machinery Mechanic	Rig Operator	FREE	Data Analyst	Heavy Equipment Operator
Seismic Operator	Chemical Engineer	Civil Structural Superintendent	Communications Specialist	Roustabout
Landman	Swamper	Mechanical Engineer	Jughound	Petroleum Engineer

Game Board #6

Petroleum Engineer	Data Analyst	Geologist	Seismic Operator	Central Control Operator
Rig Operator	Communications Specialist	Chemical Engineer	Roustabout	Hydrovac Operator
Draftsman	Mechanical Engineer	FREE	Industrial Machinery Mechanic	Landman
Swamper	Mudlogger	Oil Well Firefighter	Jughound	Civil Structural Superintendent
Deep Sea Welder	Millwright	Heavy Equipment Operator	Floorhand	Derrickhand



Game Board #7

Geologist	Industrial Machinery Mechanic	Rig Operator	Millwright	Seismic Operator
Landman	Petroleum Engineer	Roustabout	Central Control Operator	Deep Sea Welder
Civil Structural Superintendent	Jughound	FREE	Data Analyst	Draftsman
Derrickhand	Communications Specialist	Swamper	Chemical Engineer	Oil Well Firefighter
Hydrovac Operator	Heavy Equipment Operator	Mudlogger	Floorhand	Mechanical Engineer

Game Board #8

Jughound	Central Control Operator	Draftsman	Communications Specialist	Millwright
Industrial Machinery Mechanic	Oil Well Firefighter	Deep Sea Welder	Geologist	Data Analyst
Heavy Equipment Operator	Floorhand	FREE	Rig Operator	Swamper
Seismic Operator	Roustabout	Mechanical Engineer	Hydrovac Operator	Mudlogger
Petroleum Engineer	Chemical Engineer	Landman	Civil Structural Superintendent	Derrickhand

Student Worksheets: Printable worksheets and game boards are available at :
<http://www.arkansasenergyrocks.com/educators/lesson-plans-k-8/>





EUREKA Bingo Clues Student Worksheet

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