

Station 1:

3	2	11
Specimen A	Specimen B	Specimen C

1. Identify specimen a.
2. Identify specimen b.
3. Identify specimen c.
4. What is the chemical formula for specimen C?

Station 2:

9	4	14	5
Specimen A	Specimen B	Specimen C	Specimen D

5. Identify specimen a.
6. Identify specimen b.
7. Identify specimen c.
8. Identify specimen d.
9. True or false? Specimen D could scratch a penny.
10. Which specimen is a metamorphic rock?

Station 3:

5	2	6
Specimen A	Specimen B	Specimen C

11. Identify specimen a.
12. Identify specimen b.
13. Identify specimen c.
14. To which class does specimen A belong?

Station 4:

1	11	12
Specimen A	Specimen B	Specimen C

15. Identify specimen a.
16. Identify specimen b.
17. Identify specimen c.
18. What type of fracture type does specimen C exhibit?
19. Which, if any, of these specimens are *extrusive*?

Station 5:

9	14	2
Specimen A	Specimen B	Specimen C

20. Identify specimen a.
21. Identify specimen b.
22. Identify specimen c.
23. Identify one use of specimen C, other than as an ore.

Station 6:

12	6	15
Specimen A	Specimen B	Specimen C

24. Identify specimen a.
25. Identify specimen b.
26. Identify specimen c.
27. What would be the effect of adding HCl to specimen B?

Station 7:

4	9	8	2
Specimen A	Specimen B	Specimen C	Specimen D

28. Identify specimen a.
29. Identify specimen b.
30. Identify specimen c.
31. Identify specimen d.
32. What type of cleavage does specimen A exhibit?

Station 8:

7	10	75	5
Specimen A	Specimen B	Specimen C	Specimen D

33. Identify specimen a.
34. Identify specimen b.
35. Identify specimen c.
36. Identify specimen d.
37. Which of these specimens is the volcanic equivalent of plutonic granite?

Station 9:

12	13	48	83
Specimen A	Specimen B	Specimen C	Specimen D

- 38. Identify specimen a.
- 39. Identify specimen b.
- 40. Identify specimen c.
- 41. Identify specimen d.
- 42. How is specimen d formed?

Station 10:

3	10	5	7
Specimen A	Specimen B	Specimen C	Specimen D

43. Identify specimen a.
44. Identify specimen b.
45. Identify specimen c.
46. Identify specimen d.
47. What are the sheet-like, saucer-shaped intrusions of specimen D called?

Station 11:

6	8	5
Specimen A	Specimen B	Specimen C

48. Identify specimen a.
49. Identify specimen b.
50. Identify specimen c.
51. What type of crystal structure does specimen B have?

Station 12:

No number	C1	11
Specimen A	Specimen B Fragile; be careful	Specimen C

- 52. Identify specimen a.
- 53. Identify specimen b.
- 54. Identify specimen c.
- 55. Identify the class and group of specimen B.

Station 13:

12	15	8
Specimen A	Specimen B	Specimen C Fragile; be careful

- 56. Identify specimen a.
- 57. Identify specimen b.
- 58. Identify specimen c.
- 59. Which specimen is used as an ingredient in a remedy for upset stomachs?

Station 14:

11	13	15
Specimen A	Specimen B	Specimen C

60. Identify specimen a.
61. Identify specimen b.
62. Identify specimen c.
63. How does specimen b form?

Station 15:

3	6	7
Specimen A	Specimen B	Specimen C

64. Identify specimen a.
65. Identify specimen b.
66. Identify specimen c.

School/Team Name: _____

Team number: C - _____

Participant Names: _____

Rocks and Minerals

Raisbeck Aviation High School Invitational Science Olympiad Tournament

December 2nd, 2017

Instructions:

- There are 15 stations, each containing 3-4 rock/mineral specimens. You will have 3 minutes and 20 seconds to complete each station before moving to the next. There is no opportunity to return to a station.
- Answer each of the questions in the test on this answer sheet. Do not write on the station sheets. Write legibly.
- Questions are each worth 1 point. Selected questions will be used to break ties.
- Please take care to replace each specimen in the appropriate location (A-D). Each specimen has a number on it that corresponds to its particular location. Check the numbers before answering questions; do not assume that the group before you correctly replaced specimens.
- Teams are allowed one magnifying glass and one 3-ring binder (any size) containing pages of information in any form from any source

For Scoring only

Total _____ / 66

School/Team Name: _____

Team number: C - _____

Participant Names: _____

Rocks and Minerals Answer Sheet

Station 1:

1. _____
2. _____
3. _____
4. _____

Station 5:

20. _____
21. _____
22. _____
23. _____

Station 2:

5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Station 6:

24. _____
25. _____
26. _____
27. _____

Station 3:

11. _____
12. _____
13. _____
14. _____

Station 7:

28. _____
29. _____
30. _____
31. _____
32. _____

Station 4:

15. _____
16. _____
17. _____
18. _____
19. _____

Station 8:

33. _____
34. _____
35. _____
36. _____
37. _____

Station 9:

- 38. _____
- 39. _____
- 40. _____
- 41. _____
- 42. _____
- _____
- _____

Station 10:

- 43. _____
- 44. _____
- 45. _____
- 46. _____
- 47. _____

Station 11:

- 48. _____
- 49. _____
- 50. _____
- 51. _____

Station 12:

- 52. _____
- 53. _____
- 54. _____
- 55. _____

Station 13:

- 56. _____
- 57. _____
- 58. _____
- 59. _____

Station 14:

- 60. _____
- 61. _____
- 62. _____
- 63. _____
- _____
- _____

Station 15:

- 64. _____
- 65. _____
- 66. _____