For Teachers: When you use Dual method, please have the students do the shadowing. Then have them read by them self. And correct their pronunciation,

イートックのレッスン以外で使用禁止 Ban to use this without eTOC lesson.

▼TOC Part2Lesson9 Pre1 3.2-2018.3chobundokkai スマホの方は横にしてご覧下さい

FORECASTING THE BIG BLOW

1

- 2 Unlike many extreme weather events, such as hurricanes and severe snowstorms,
- 3 **geological** phenomena such as earthquakes and **volcanic eruptions** are difficult to
- 4 predict. In recent years, however, a number of tools have been developed to help
- 5 scientists make correct judgments of the risk of these events. Modern methods of
- 6 analysis that use real-time satellite data to continuously revise computer models
- 7 have greatly improved scientists' understanding of geological activity.
- 8 Additionally, scientists now use satellite data to measure slight changes in the
- 9 landscape around volcanoes. Earth's crust can rise a millimeter at a time as it is
- pushed up by the pressure of the hot liquid rock, or magma, below.
- 11 geological 地質の volcanic 火山の eruption 噴火

Further Questions & Sample Answers

For Teachers: Please use the direct method like CALLAN for this part. 1. Ask student to answer the question on their own first. 2. Then read the "sample answer". 3. Tell student to close their eyes. 4. Let them repeat after you again. Because student can't see the answer. 5. Have the student try to memorize the student aanswer. 6. Once they have memorized the answer, ask the question one last time.

- 1) What makes geological phenomena unlike many extreme weather events?
- 1) They are are more difficult to predict than extreme weather events.
- 2) How much does the earth's crust rise as it is pushed up by the pressure of magma, below?
- 2) The Earth's crust can rise a millimeter at a time as it is pushed up by the pressure of the hot liquid rock.
- 12 Though this cannot be perceived by visual observation on the ground, satellite
- cameras far above can determine whether a volcano's surface is rising-an
- 14 **indicator** of a possible eruption. Scientists are particularly concerned about
- caldera volcanoes. These are large formations created by ancient volcanoes that
- 16 collapsed inward after erupting. Calderas sit above pools of magma that can
- erupt with little warning. Because the rich soil around such volcanoes tends to
- attract dense human settlement, eruptions can be especially deadly. Calderas
- are not cone-shaped like typical volcanoes, so the possibility of an eruption
- 20 often simply does not occur to people.

Indicator 指示する人

Further Questions & Sample Answers

- 3) Why are satellite cameras better for determining whether a volcano's surface is rising?
- 3) Because it cannot be perceived by visual observation on the ground.
- 4) Why are volcanoes such as calderas particularly deadly?
- 4) Because the rich soil around such volcanoes tends to attract dense human settlements and the possibility of eruption often simply does not occur to people.
- Moreover, their fairly flat shape poses an additional risk: unlike with cone-
- shaped volcanoes, which generally erupt from the top of the cone, there is no way
- to tell from where on the surface of a caldera volcano the magma will escape, and

- 24 it may even come out of multiple spots. Campi Flegrei, west of the Italian city of
- Naples, is a caldera volcano that scientists are examining closely, as more than
- 26 700,000 people live within its "danger zone." In recent years, patterns of land rise
- 27 there have been similar to those that occurred before caldera eruptions in other
- 28 parts of the world, indicating that the crust may be near the breaking point.

Further Questions & Sample Answers

- 5) Why does the fairly flat shape of a caldera pose an additional risk?
- 5) Because there is no way to tell from where on the surface of a caldera volcano the magma will escape.
- 6) Why do scientists believe that Camp Flegrei may be near the breaking point?
- 6) Because patterns of land rise there have been similar to those that occurred in other caldera eruptions.
- 29 The Italian government has raised alert levels but has hesitated to take further
- 30 steps such as evacuating residents. Experts cannot say with certainty whether
- 31 Campi Flegrei will erupt soon, or likewise give any timeline for a future
- 32 eruption. Residents of the area, having experienced numerous false alarms, do
- 33 not want to evacuate when an eruption is far from certain. Furthermore,
- 34 property values have fallen when past warnings were issued, allowing real
- estate investors to buy land at bargain rates. This has made some residents
- 36 suspicious of the motive behind emergency warnings.

Further Questions & Sample Answers

- 7) Why has the Italian government hesitated to take further steps such as evacuating residents?
- 7) Experts can't say whether Camp Flegrei will erupt soon, or likewise give any timeline for a future eruption.
- 8) Why are some residents suspicious of the motives behind emergency warnings about calderas?
- 8) Because when warnings were issued, property values have fallen which allowed real estate investors to buy land at bargain rates.

*Choose the correct answer from these choices.

- 88 (29) 1. In other words
 - 2. Despite this
 - 3. For example
 - 4. Otherwise
 - (30) 1. are making more money at summer jobs
 - 2. have started working at a younger age
 - 3. are more concerned about education
 - 4. make a serious error
- 40 (31) 1. worsening academic performance
 - 2. growth in the economy
 - 3. a decrease in employment opportunities
 - 4. shifts in moral values



(31)341 Answers: (29)2 (30)3

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