

Scenarios that we discussed how to handle

- Someone starts sharing their medical history with you for what feels like eternity.
- A flat Earther visits the stand and starts arguing with you and goes on to tell other visitors that everything you say is a lie.
- A visitor with whom you initially have a nice conversation starts behaving increasingly inappropriate, making weird remarks, invading your personal space, etc.
- Someone is doing one of the hands-on experiments and hurts themselves.
- You see a parent hard-handily grab their child and tell them off. Later you notice that the child is covered in bruises, and you suspect them to be related to domestic violence.
- A Royal Society Fellow starts making remarks about how your research is nothing new and we already knew all of these things 50 years ago.
- Someone is intoxicated and you are afraid they will break something on the stand.
- Someone is so excited about one of the experiments that they will not stop playing with it, and a line starts to form rapidly.
- You can see from the corner of your eye that one of your colleagues is not having a good interaction with a visitor, but your activity is busy with a large group of people that you cannot leave unsupervised.

Quiz Questions

[KM] = Key Message, [LO] = Learning Outcome

- 1. What is a magnetic field? [KM1; LO1]**
 - a. The thing that makes fridge magnets stick
 - b. A force field around electric wires
 - c. The thing that makes a compass point north
 - d. All of the above
- 2. If I tell you I am a paleomagnetist, what do you think I study? [KM2]**
 - a. Dinosaurs and fossils
 - b. The magnetic sense of birds
 - c. Earth's magnetic field in the past
 - d. Antique compasses
- 3. Where in Earth do you think its magnetic field comes from? [KM3]**
 - a. The ocean bottom
 - b. The hot rocky mantle
 - c. The liquid outer core
 - d. The solid inner core
- 4. What creates the Earth's magnetic field? [KM3]**

- a. Lots of little magnets
- b. One big magnet
- c. Hot churning liquid iron
- d. Rusty old lava

5. What does the Earth's magnetic field NOT do? [KM1; KM3]

- a. Make compasses point north
- b. Tell us about the inside of our planet
- c. Protect satellites in space
- d. Make volcanoes erupt

6. When were the continents all together in Pangaea? [KM3]

- a. Three thousand years ago
- b. Three million years ago
- c. Three hundred million years ago
- d. Three billion years ago

7. When in the past do you think compasses would have pointed south instead of north? [LO2]

- a. Never
- b. 781 years ago
- c. 7810 years ago
- d. 781,000 years ago

8. How do you think scientists know that compasses would have pointed south in the past? [KM2; LO1]

- a. By looking at fossils with a microscope
- b. By measuring rocks with a magnetometer
- c. By reading maps of old explorers
- d. None of the above

9. How do you think scientists who study Earth's magnetic field are most likely to collect their rock samples? [LO4]

- a. They find them in a museum collection
- b. They drill them straight from the ground
- c. They go down a deep mine shaft
- d. They collect them from the bottom of the ocean in a submarine

10. Have you visited the stand "Magnetic to the core"

- a. Not yet
- b. Yes for less than 10 minutes
- c. Yes for more than 10 minutes

11. If yes, do you agree or disagree with the statement: "I learnt lots of new things about Earth and its magnetic field?"

- a. disagree
- b. Neither agree nor disagree
- c. agree

12. Would you like to find out more about the Earth's magnetic field (for example, by visiting www.geomagnetism.org [on the fridge magnet])?

- a. Definitely not
- b. Perhaps
- c. Definitely

13. When did you last read a science news article online or in print (not health or medical)

- a. In the last week
- b. In the last month
- c. Longer/never/can't remember

14. Could you tell us one cool thing that you learned?

Question for surveyor:

15. Does the participant appear to be in school?

Yes / No