

Box 9. A selection of most creative responses across countries for the Save the Bees item

- رثك افرعتي دلجل هذه لالحو زئافل او هة اهنلل لصي نم لوأو لحن لثم بالطل اصبص ضرألا لىلع عوبطم نوكت ةبع ل لحنلا لىلع [...] // [...] a game that is printed on the floor. Students become like bees and the first one to reach the end is the winner and during this journey they learn more about bees. (Saudi Arabia)
- **Creare un videogioco a tema api [...] in cui il giocatore deve far crescere ed evolvere il suo alveare, e difenderlo dalle minacce degli umani cattivi.** // Create a video game on the subject of bees [...] in which the player has to make his hive grow and evolve, and defend it from the threats of evil humans. (Italy)
- **创建一个VR的场 [...] VR场景一开始是一片绿色的公园和繁忙的街道(有蜜蜂的世界) 下一个场景就变成一个种植植物的大棚,外面卻尘土飞扬 (这是没蜜蜂的世界)** // Create a VR scene [...] The VR scene starts with a green park and busy streets (a world with bees). The next scene becomes a greenhouse with plants growing, but it is dusty outside (a world without bees). (Hong Kong)
- **lahko bi naredili spletno platformo, ki bi s pomočjo banerjev/pasíc ljudi, ki redno uparablajo družabna omrežja, kar je vecina, ozavesčali o pomembnostih čebel. na dnevni bazi bi bili deljeni zanimivi podatki o čebelah. da bi ljudi se dodatno motivirali, bi lahko naredili nagradno igro za katero predpogoj je reševanje kviza o čebelah [...].** // an online platform could be created to make people who regularly use social networking sites, which is most of them, aware of the importance of bees by means of banners/passwords. interesting information about bees would be shared on a daily basis. To motivate people further, we could make a prize game for which the prerequisite is to solve a quiz about bees [...] (Slovenia)
- **[...] Γι αυτό θα πρέπει να σχεδιαστεί ένα πρόγραμμα το οποίο δείχνει τις καθημερινές ρουτίνες των μελισσών με κάποια ειδική κάμερα η οποία θα δείχνει ζωντανά την ρουτίνα των μελισσών** // [...] a program should be designed that shows the daily routines of the bees with a special camera that will show the bees' routines live. (Greece)
- **Le club pourrait faire une expérience [...] Il faudrait deux terrain de fleurs différent. Dans l'un les abeilles pourrait butiner dans l'autre on leurs en empêcherait. A la fin de l'expérience, au printemps, seule les fleurs butinées auront fleuri. Les élèves se rendront alors compte de l'importance des abeilles et l'impact qu'elles ont sur la nature** // The club could conduct an experiment [...] Two different flowerbeds would be needed. In one, the bees could gather pollen; in the other, they would be prevented from doing so. At the end of the experiment, in spring, only the flowers that had been pollinated would have blossomed. (France)
- **Faire faire au gens le travail des abeilles de manière ludique, c'est-à-dire leur faire fabriquer du miel, ou aider à la fécondation de plantes, comme un jeu pour les aider à comprendre leur importance et leur travail; Comme une simulation ou ils seraient l'abeille.** // Get people to do the work of bees in a fun way, i.e. get them to make honey or help with the fertilisation of plants, as a game to help them understand their importance and their work; like a simulation where they are the bee. (Belgium)
- **Realizar una especie de panal en grande, de modo que la gente pueda sacar de cada hexagono del panal distintos beneficios de la abejas en la naturaleza, en la salud y en todas las áreas posibles** // To make a kind of big honeycomb, so that people can draw from each hexagon of the honeycomb different benefits of bees in nature, in health and in all possible areas. (Chile)
- **hacer un panal tamaño persona, para ver lo que hacen las abejas y estas serian personas disfrazadas** // Make a person-sized honeycomb, to see what bees do and these would be people in disguise. (Colombia)

- **fazer um comercial para dizer o quanto elas são importantes** // *A play organised for all the schools in the town about bees and their importance.* (Brazil)
- **Use VR to make a simulation of what the world would look like without bees...** (Canada)
- **꿀벌의 이로운 점과 중요성, 현재 꿀벌에게 일어나고 있는 일등을 가사로 하는 노래를 만들어 사람들이 한번쯤 들으므로써 꿀벌에 관심을 가질 수 있게 한다** // *By making people interested in bees by listening to songs with lyrics about the benefits and importance of bees and what is happening to bees now.* (Korea)
- **realizar um espetáculo [...] em que pessoas voluntárias se vestiam não só de abelhas mas também de insetos e representariam todas as atividades que estes conseguem realizar, sendo uma forma engraçada e diferente de mostrar às pessoas como estes pequenos animais são importantes. Podendo elaborar cartazes com a informação sobre o local e a hora do espetáculo.** // *Hold a show [...] in which volunteers dress up not only as bees but also as insects and represent all the activities they can perform, as a funny and different way of showing people how important these little animals are. You could make posters with information about the place and time of the show.* (Portugal)
- **Hacer una JORNADA DE POLINIZACION en donde los estudiantes conozcan los beneficios de las abejas, la importancia que poseen. Además se les entregaría una flor nativa que pueden sembrar en algún lugar en donde puedan ser polinizadas o incluso pueden elegir una área de su comunidad para sembrar dichas flores** // *Hold a POLLINATION DAY where students learn about the benefits of bees and their importance. They would also be given a native flower to plant somewhere where it can be pollinated or they could even choose an area in their community to plant these flowers.* (Colombia)
- **A school play or concert where the main topic is to save the bees or the money raised goes to save the bees** (Canada)
- **man könnte einen Verkaufstand vor die Schule stellen in dem man Blumen und Obst verkauft. Die Blumen und das Obst sind allerdings aus Plastik und nicht echt. Trotzdem tut man so als wären dies die Produkte der Zukunft, um zu verdeutlichen was wegfällt, wenn es keine Bienen mehr gibt.** // *You could set up a stall selling flowers and fruit in front of the school. The flowers and fruit are made of plastic, not real ones. Nevertheless, you act as if these were the products of the future to illustrate what will be lost if there are no more bees.* (Germany)

Note: Student responses are shown as they were submitted in the PISA 2022 creative thinking test, including creative spelling and grammar. The notation [...] indicates where student responses have been shortened for brevity.

What were common themes or features across creative responses?

Students in many countries were able to come up with creative awareness-raising initiatives, proposing ways to make learning about the importance of bees fun, interactive and practical (rather than simply disseminating the information). One common theme amongst creative ideas was proposing interactive and experiential games or activities where people play the role of bees. For example, a student in Saudi Arabia suggested creating a game where people race like bees to the end of a beehive design, learning about bees along the way. Similarly, a student in another country suggested creating a fun simulation where people help make honey or pollinate flowers.

Numerous students also used art and performance as tools for engaging audiences with the message. For instance, one idea was to create a giant life-sized honeycomb where students could observe what bees do (where the bees would be performers in disguise). Other students also suggested organising bee-themed shows or performances where people demonstrate the importance of bees in our societies in a fun and entertaining way. Organizing more typical campaigns or events like “Bee Days”, including performances, games and activities, was another popular approach amongst students.