

Unit 3: Inventions

	Title	Reading	Listening	Writing	Speaking
1	Israeli medical inventions	Informative Article	----	Opinion	Expressing Opinions
2	Living Longer	---	Talk	Letter	Opinion
3	What a Dilemma	Description	Description	Letter	Description and explanations
4	How to Invent Something	Manual	Dialogues	----	Role play
5	Let's Be Inventors	Questionnaire	Presentation	Description of process	Pitch
6	Technology and Halacha	Article	----	Description and opinion	Expressing opinions
7	Ask the Rabbi from the Institute of Science and Halacha	----	Telephone conversations	Request letter	Expressing ideas and describing
8	Nanotechnology	Article	---	Opinion letter	Opinion
9	Technology – Good or Not?	----	Group discussion	For and against	Group discussion, expressing opinions

Overall performance objectives:

- Can express opinion and preference
- Can describe people, situations, and things, orally and in writing
- Can write various types of letters
- Can write an opinion essay
- Can persuade and discuss a variety of topics orally
- Can give commands orally and in writing
- Can express an understanding of new topics

Vocabulary: New

accordingly	competition	duty	field	limited	profitable	specifically
accurately	compromise	dynamics	gentleman	marketing (v)	prohibition	sufficiently
adapted	consultant	economical	illness	measurements	promising	surface
address	coordinated	economy	implications	mode	property	swallow
anybody	creation	electronic	inconvenience	multiply	prove	technological
anymore	deny	elements	inquire	necessity	psychologically	tiny
appliances	depression	eliminate	inspiration	opponent	relevance	truly
appointment	devise	engineers	insurance	outline	resolve	use
approximately	devotedly	establishment	intention	participation	response	weakness
assistance	diagnose	estimate	inventions	patent	revision	width
bond	disposable	ethical	inventor	patient	revolution	
breath	disturbed	exceptionally	investigation	permanent	risk	
caregiver	diverse	extensively	irregular	permit	science	
claim	draft	factories	knowledgeable	point	solar	
comments	drawing	feature	lawyer	production	somehow	

Chunks, idioms and sayings

are to blame	keep on doing sth	no wonder
as a whole	from time to time	old fashioned
at X point	in conclusion	showed up
equivalent to		

Reentered / Reviewed

acknowledged	chores	emotionally	institute	practical	specific
acknowledgment	circumstance	enable	involved	prevent	status
acquire	communities	environmental	journal	previous	strangers
adequately	complex	essential	justify	problematic	substance
advanced	connection	established	knowledge	process	suffering
advances	consider	experienced	label	producing	summary
advocate	customers	experts	life-threatening	product	system
affected	damage	familiar	manufacture	protection	technology
affordable	declare	figure out	manufacturer	publishes	throughout
allow	demonstrate	financial	massive	quality	traditional
analyze	design	gain	material	rapid	volunteer
anxious	designers	get rid of	medical	recommend	
approval	detail	guarantee	model	reduce	
aspects	developed	identified	moreover	relationship	
available	devices	illustrating	objective	research	
beneficial	diagnose	imaginary	obligation	responsibility	
benefit	discovery	impact	occasionally	senior citizen	
breathe	disease	impressions	personal	significance	
category	distinguished	incentive	physically	solution	
characteristic	effort	inconvenience	potential	source	

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1: Israeli Medical Inventions

1. Let's Talk! Have a discussion about medical inventions from Israel. Have the students relate to the questions orally. If they aren't familiar with any, give them an example of two from below.

Possible answers to 1 and 2. For 3 and 4 accept any logical answer.

1. x-ray, ultrasound, CT, MRI and others
2. vaccines, new medicines, laparoscopy (to make surgery much easier and quicker), heart and kidney transplants

Option: Have the students discuss the questions in pairs and then report back to the whole class in a class discussion.

2. a. Have the students match the word in Column A to the definition in Column B.

Answers:

- | | | |
|------|------|------|
| 1. i | 4. b | 7. f |
| 2. e | 5. d | 8. g |
| 3. a | 6. h | 9. c |

2.b. Have the students choose the correct meaning of the word in bold.

Answers:

- | | | |
|------|------|------|
| 1. a | 2. a | 3. b |
|------|------|------|

- 4. a
- 5. b

- 6. a
- 7. a

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3. Have the students complete the dialogue using the words in the word bank.

Answers:

- | | | |
|--------------|------------------|--------------------|
| a. inventor | d. inconvenience | g. psychologically |
| b. swallow | e. devised | h. disposable |
| c. invention | f. no wonder | i. economical |

4. Read the text with the students. Discuss what type of text this is and what we can expect to find in it. Ask them to look at the title and think about what they might learn.

It's recommended that you read and discuss the context so that the text is understood by all the students. See example in TG, page iii, [Working with a Text](#).

Ask questions while reading to ensure comprehension.

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5. Have the students answer the questions according to the text in Exercise 4.

Answers:

- a. 3 & 4
- b. *Doctors can only treat people after they know what the illness is.*
- c. 1
- d. *because of his own personal experiences / because he saw how difficult it was to test for stomach pain*
- e. Any two of the following: *It is easier / It works better / It is more successful / It is more convenient / The test does not have to be done in the hospital.*
- f. 1. *They both diagnose a person / find out whether or not there is an illness*
2. *They both invented products as a result of their own personal experiences.*
- g. 4

6. Let's Write! Have the students write an essay about one of the medical inventions mentioned in the article in Exercise 4. They should write who the invention would be useful for and why it may be beneficial for them. They are to write between 110-120 words in their notebooks.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this.

You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.

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2: Living Longer

1. Let's Talk! Have a whole class discussion about the questions relating to age and quality of life. Encourage the students to express their opinion and to share of their knowledge and experience.

Refer to the Tip! Box to remind the students of how to express an opinion.

2. a. Have the students choose the correct meaning for each bold word.

Answers:

- | | |
|------|------|
| 1. b | 5. b |
| 2. a | 6. a |
| 3. a | 7. b |
| 4. b | 8. a |

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2.b. Have the students choose the word that doesn't have the same meaning as the word in bold.

Answers:

- | | |
|-------------|------------|
| 1. children | 4. quickly |
| 2. bring | 5. happily |
| 3. mother | |

3. Have the students choose the correct meaning for each of the words.

Answers:

- | | |
|------|------|
| a. 2 | d. 4 |
| b. 3 | e. 3 |
| c. 1 | f. 3 |

4. Listening Comprehension.

a. Before listening to the talk, have the students mark what they think might be in the talk by Dr. Brown.

Have the students listen to the talk and check their answers.

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4.b. Have the students listen a second time and answer the questions in their notebooks.

It's a good idea to have them read the questions prior to listening.

Play the recording twice to enable the students to check their answers.

Transcript

Moderator: Good evening and welcome to tonight's talk. Our guest speaker tonight is Dr. Brown, a doctor in our community who specializes in treating older patients. Dr. Brown is going to tell us how we can help our parents and grandparents as they become older. Thank you, Dr. Brown, for taking the time to speak with us.

Dr. Brown: Thank you for inviting me to come. As we all know, people are living longer today, thanks to improved health care. We are living at a time when it is much easier to diagnose and treat illnesses, and to eliminate many diseases that in the past caused people to die at a young age. Because of these improvements in health care, more and more people can reach the age of ninety and even a hundred.

However, despite the medical advances, there is somehow much less research on how to improve the lives of older people. A growing number of senior citizens suffer from weakness, health problems, memory loss, loneliness, and sometimes from depression. It is the job of the family members, of their children and grandchildren, to get them the help that they need, and to make sure that their physical and emotional needs are sufficiently met.

Here are a few tips for making your older parents and grandparents feel better. First of all, make sure that they have the help that they need. Some older people need a caregiver a few hours a day to help with shopping, cooking, and organizing the home. Others need full-time help. In any case, a member of the family must be involved to make sure that the caregiver is

doing his or her job devotedly, and that the grandparents are happy with the way the caregiver works.

In addition to providing for their physical needs, it is important to think about the emotional health of our senior citizens. Call your parents or grandparents often, to show them that they are truly important to you and that you need them. Tell them about the things you are doing and ask them for advice or for their opinion about the best way to do things. Another idea is to keep your parents involved in the lives of their grandchildren. From time to time, take your children to study with their grandparents, or to do homework with them.

Grandparents' participation in family events is also important. That way, older grandparents will feel more useful and more needed. In any case, if there are several children in the family who are planning to visit, it is important to coordinate their plans so that each child knows the best time for him to visit or to call.

The senior citizens in our community have access to good doctors and to excellent medical care. It is the duty of the family and the community to make sure that their lives remain meaningful and enjoyable as they get older.

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Answers to questions:

1. b
2. our parents and or grandparents as they get older
3. a
4. d
5. Any one of the following: weakness/ health problems/ memory loss/ loneliness/ / depression.
6. Any one of the following: shopping/ cooking/ organizing the home
7. b. & e.

5. Let's Write! Have the students write a letter to an older person, a grandmother, an elderly aunt, an elderly neighbor, and tell her about their day. They should decide on a topic that they can ask advice for and ask that person for advice.

They can make up a person if they can't think of anyone or if they don't have someone.

They should write between 100-120 words in their notebooks. Encourage them to share their letters.

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3: What a Dilemma!

NOTE: Lesson 3 gives the class the opportunity to discuss ways that families can help their older grandparents live more meaningful lives. Throughout the lesson, it may be important to stress the importance of the Mitzvah of honoring parents. Any discussion must be carried out with the proper respect.

1. Let's Talk! Pair Work. Have the students discuss the questions in pairs. They should relate to as many of the questions as they feel they are able to.

Have the pairs share their ideas afterwards in a class discussion.

2. a. Have the students match the word to its meaning.

Answers:

- | | | |
|------|------|------|
| 1. f | 4. b | 7. e |
| 2. h | 5. c | 8. d |
| 3. a | 6. g | |

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2.b. Have the students read the sentences and choose the sentence that means the same as the original sentence.

Answers:

- | | | |
|------|------|------|
| 1. a | 4. a | 7. a |
| 2. b | 5. a | |
| 3. a | 6. b | |

3.a. Have the students complete the letter using the words in the word bank. Point out that there are more words than are needed.

Answers:

- | | | |
|------------------|--------------|---------------|
| 1. anymore | 4. deny | 7. bond |
| 2. establishment | 5. limited | 8. dynamics |
| 3. disturb | 6. permanent | 9. assistance |

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3.b. Have the students write examples for each of the descriptors.

Accept any sentence that is clear and shows understanding of the vocabulary words.

4. Group work. In small groups of three or four, have the students discuss the situation presented and reach a conclusion or make a decision regarding what they think is best for their grandmother.

They should relate to all the points presented.

5. Have each group present their dilemma, the options that they thought of that may solve the dilemma, the advantages and disadvantages of each option, and the conclusion that they came to.

Encourage the class to discuss the various dilemmas that were presented and their conclusions. Ask other students in the class to suggest other options or other ways that the family can help “the grandmother” in each case.

6. Let’s Write! Have the students write a letter to their sister in England explaining the reasons for the decisions made regarding the grandmother. They should write between 120-140 words in their notebooks. Encourage them to share their letters.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this.

You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.

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4: How to Invent Something

1. Let’s Talk! Pair work. Have the students discuss the questions in the exercise in pairs explaining their points of view. Then encourage the pairs to share their ideas.

Refer to the **Tip!** Box to remind the students of how to describe an idea.

2. a. Have the students match the question in Column A with its answer in Column B.

Answers:

- | | |
|------|------|
| 1. d | 5. h |
| 2. f | 6. c |
| 3. a | 7. e |
| 4. g | 8. b |

2.b. Have the students rewrite the sentences using the words in the word bank instead of the words in bold. They should write their sentences in their notebooks.

Answers:

- | | |
|-------------------|----------------|
| 1. necessity | 5. investigate |
| 2. diverse | 6. patented |
| 3. draft | 7. lawyer |
| 4. keep on trying | 8. marketing |

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3. a. Have the students fill in the parts of speech chart for the words provided.

Answers:

Noun	Verb	Adjective	Adverb
1. creation/creativity	create	creative	creatively
2. diversity	diversify	diverse	diversely
3. market	market	marketable	-----
4. revision	revise	revised	-----
5. patent	patent	patented
6. necessity	necessitate	necessary	necessarily

3. b. Have the students complete the short paragraphs with words from a single word family in each paragraph.

Answers:

- | | | |
|-------------------|--------------|----------------|
| 1. a- necessities | b. necessary | c. necessarily |
| 2. a. diverse | b. diversity | |
| 3. a. revisions | b. revise | c. revised |

4. c. Have the students write 3 more sentences, using word families from the table. Accept any sentence that is clear and that shows understanding of the vocabulary words.

5. Read the text with the students. Discuss what type of text this is and what we can expect to find in it. Ask them to look at the title and think about what they might learn. It's recommended that you read and discuss the context so that the text is understood by all the students. See example in TG, page iii, **Working with a Text**.

Ask questions while reading to ensure comprehension.

NOTE: Make sure to emphasize that the word *patent* is pronounced differently in English, with the stress on the first syllable.

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5. Have the students answer the questions according to the article in Exercise 4, in their notebooks.

Answers:

- 3
- The "kankomat" is an example of a product that *was invented to solve a problem*.
2. & 4.

- d. Before you develop your invention, you must investigate whether *your invention is original/ anyone else already invented the same thing*
- e. 1.
- f. Any one of the following: *You can open a small business / make the product yourself/ find another company to make it for you.*
- g. *Inventing a new product may make a difference in your lives and in the lives of others.*

6. Let's Talk! Pair work. Have the students work in pairs to role play a situation where one girl tells the other about an invention she wants to create. The other girl should ask questions to get more information about it. Encourage them to make the ideas quirky and amusing. They should present their role plays to the class.

You can assess the students using the **Speaking Rubrics** on page ix in the TG.

Information in this lesson based on <https://www.wikihow.com/Invent-a-Product>

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5: Let's Be Inventors

1. Let's Talk! Have a class discussion where the main point is that the students are to imagine they are inventors and they have to think about the questions and express their ideas relating to the topic.

Encourage the students to talk freely and to make up ideas on the spot.

Relate to the **Tip!** Box to encourage them to express their ideas properly.

2. a. Have the students match the vocabulary word to its meaning.

Answers:

- | | | |
|------|------|------|
| 1. d | 3. e | 5. f |
| 2. a | 4. b | 6. d |

2. b. Have the students choose the word in each line that is different than the word in bold.

Answers:

- | | | |
|-----------|-------------|---------------|
| 1. no one | 3. process | 5. affordable |
| 2. deny | 4. approval | 6. question |

3. Have the students complete the dialogue using the words in the word bank. Point out that some changes may be needed.

Answers:

- | | |
|----------------|-------------|
| a. competition | e. features |
| b. intention | f. comments |
| c. relevance | g. estimate |
| d. outline | h. anybody |

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4. Let's Write and Talk!

a. Group work! Have the students work in small groups of three or four students. They are to think of an original invention that could make life a little easier. If they have trouble thinking of an idea, ask them to think of a small problem that they have, or that other people have, and to try to think of an invention that can solve the problem. After they have an idea,

they should fill in the “form” in their notebooks. Then they should decide how to present their ideas to the class. They may want to draw a picture of their “invention” and to explain how it works, or to demonstrate what the invention can do.

4.b. Have the groups present their inventions to the class. Encourage them to demonstrate how things might work.

4.c. While the groups are presenting, each student should be evaluating the presentations and ideas presented using the guidelines provided. They are to do this in their notebooks. Discuss the feedback and why the students think what they do about the various inventions. You can assess the students using the [Speaking Rubrics](#) on page ix in the TG.

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5. Let’s Write! The students should write a composition based on the notes that were taken during the presentations. Their composition should include a description of two of the inventions presented, and an explanation why this is a good idea. The final paragraph should explain why they think these inventions should take part in the competition. They should write between 120-140 words in their notebooks.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this. You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.

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6: Technology and Halacha

1. Let’s Talk! Have a class discussion about the affect of computerization on appliances and their uses on Shabbat. Have the students think about what changes might have been made in their home appliances that affect their use on Shabbat. Encourage the students to give examples.

NOTE: If the students aren’t sure what changes have been made to appliances, give examples of refrigerators that are more sensitive to changes in temperature or in the amount of food that is inside them. Washing machines are more sensitive to the amount of laundry that is put into them.

2 a. Have the students write the word from the word bank for each definition.

Answers:

- | | | |
|------------------|------------|---------------|
| 1. knowledgeable | 3. science | 5. consultant |
| 2. show up | 4. inquire | 6. resolve |

2.b. Have the students choose the correct meaning of the words in bold.

Answers:

- | | | |
|------|------|------|
| 1. a | 4. a | 7. b |
| 2. b | 5. b | |
| 3. a | 6. a | |

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3. a. Have the students complete the crossword using the clues provided.

Answers:

Across:

1. appliance
3. revolution
5. compromise
6. factory

Down:

2. electronics
4. consultant

3.b. Have the students write sentences about the topics provided. Encourage them to share their ideas.

4. a. Discuss the questions prior to reading the text with the class. have the students express their ideas and perhaps share what they know.

The story of the Saudi prince and Japanese businessman was written in Hebrew in a weekly advertising newspaper called שדח which came out on the 14th of Tamuz 2021

4.b. Read the text with the students. Discuss what type of text this is and what we can expect to find in it. Ask them to look at the title and think about what they might learn. It's recommended that you read and discuss the context so that the text is understood by all the students. See example in TG, page iii, **Working with a Text**. Ask questions while reading to ensure comprehension.

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5. Have the students answer the questions according to the text in Exercise 4.

Answers:

- a. 3
- b. 1
- c. 1. *The hotels in Hong Kong used new electronic locks to open and close hotel rooms.*
c.2. *(The people who made the new locks/ The Saudi prince and the Japanese businessman) came to the Institute to (find out how to solve the problem / to find a way that everyone could benefit from their locks.)*
- d. *...the Institute is known throughout the world for its ability to solve difficult questions without compromising on Torah values.*
- e. 4
- f. 3

6. Let's Write! Have the students write a description of an appliance at home that has changed in the last few years due to technology. They should state their opinion on the change. They should write between 100-120 words. Encourage them to share their work. You can use the **Writing Templates** on page iv in the TG to help you teach and review this. You can use the **Writing Rubrics** on page v in the TG to help you grade this.

Information in this lesson was based on: <https://www.machonhalacha.co.il/>

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7: Ask the Rabbi from The Institute of Science and Halacha

1. Let's Talk! Have the students refer back to the article in the previous section, 6: Technology and Halacha, about the Institute of Science and Halacha. Remind them of what you discussed when reading it.

Then have a class discussion around the questions presented. Encourage the students to express their ideas and opinions.

NOTE: If you find that the students can't come up with ideas, you may bring some of your own. Here are a few examples to help you.

1. *Appliances using new technology may cause many Halachic questions, especially in the field of Shabbat. (Examples are opening refrigerators, going into hotels or hospitals, electronic lights, etc.*
2. *Most new refrigerators can come with a Shabbat mode. Some of these must be set every week by turning dials, or in other ways. Some are automatic, so that the refrigerator goes into Shabbat mode without any action.*
3. *This is a question that may be difficult. One option is to use a timer to turn the electricity on and off, and to only open the refrigerator when the electricity is off.*

2. Have the students match the word in Column A to the meanings in Column B. Explain that not all the definitions are used.

Answers :

Group 1:

- | | | |
|------|------|------|
| 1. k | 3. f | 5. c |
| 2. e | 4. a | 6. g |

Group 2:

- | | | |
|------|------|------|
| 1. f | 3. b | 5. c |
| 2. a | 4. i | |

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3. Have the students complete the passage with the words in the word bank.

Answers:

- | | | |
|------------------|------------|--------------|
| a. old-fashioned | d. surface | g. permitted |
| b. prohibition | e. mode | |
| c. to blame | f. use | |

4. Listening Comprehension.

Have the students listen to the interview telephone conversations between the Rabbis from the Institute for Science and Halacha and callers who have questions. They should then answer the questions in their notebooks.

It's a good idea to have them read the questions prior to listening.

Play the recording twice to enable the students to check their answers.

NOTE: The listening comprehension is based on questions and answers that are found in the site of the Institute. You may want to stress to the class that these guidelines may not be the same as that of their Rabbi, and that this should be seen as practice in English and not as Halachic guidelines.

<https://www.machonhalacha.co.il> - שאילות לרבני המכון

Transcript

We are going to listen to telephone conversations that may have taken place, between private citizens and knowledgeable Rabbis from the Institute for Science and Halacha. These questions and answers were among those that appear in the journals of the Institute.

[Phone ringing]

Caller 1: Rabbi, I bought a baby spoon that changes colors if the baby food is too hot. This is a safety feature, so that the babies do not get hurt from hot food. Can I use the spoon on Shabbat, even though I may be causing the spoon to change colors?

Rabbi: Yes. The spoon may be used on Shabbat without any problem. When we say that we are not allowed to color something on Shabbat, it means that we are not allowed to put color on the surface of an object. In this case, the color of the spoon is affected by a chemical change caused by the heat, which is not included in the prohibition of coloring.

Caller 1: Thank you very much, Rabbi.

[Phone ringing]

Caller 2: I would like to ask about the possibility of putting a strong light outside my home with an electronic eye, so that it will light up whenever someone comes into my property. The use of this kind of light was recommended by my insurance company. Is it possible to use this light on Shabbat?

Rabbi: No, it is not. Because you are interested in the light turning on specifically in this situation, and you benefit from this light, you should not put it up in your property. If someone walks into your yard and, consequently the light starts to shine, you are to blame for it.

Caller 2: And what happens if I am walking down the street, and electronic lights of my next-door neighbor start to go on because I passed by?

Rabbi: Then you are not doing anything wrong. You have no **benefit** from the light, so there is no reason that you have to worry about it. In fact, you are allowed to pass by the home of a neighbor even if you know that the light will go on. There is no reason that you have to cross the street to avoid activating their light.

Caller 2: Thank you for clarifying the issue.

Rabbi: You are welcome.

[Phone ringing]

Caller 3: Hello, I would like to ask a question about clothes dryers.

Rabbi: Yes, what is your question?

Caller 3: I would like to know if I am allowed to take something out of the dryer on Shabbat.

Rabbi: In the old-fashioned kinds of clothes dryers, it was permitted to take clothing out of the dryer as long as the clothes were dry before the Shabbat began. However, in our times, there is an additional problem. When someone opens the newer clothes dryers, he usually causes the electronic setting in the dryer to change. Accordingly, one may not open the door of the dryer on Shabbat unless he knows that the electronic setting is turned off, so that opening the door will not result in any lights or settings to be activated.

Caller 3: Thank you for your answer.

[Phone ringing]

Caller 4: I am a Rabbi in Monsey, in the United States, and we are trying to figure out the best way to open electronic refrigerators on Shabbat. We know that in Israel there are special Shabbat modes, special settings, which are put into the refrigerators in the factory. The problem is that the factories in America that make refrigerators do not put in Shabbat modes. The people in our community want to know how to avoid problems, and we do not know what to tell them. What do you suggest?

Rabbi: Our Shabbat mode is the best solution, but if that is not possible, there are a few other options. The best option is to use a timer, which turns the electricity of the refrigerator on and off. Then, when the electricity is off, it is possible to open the doors.

Caller 4: Thank you so much for your advice. I hope we will be able to find a way to use your Shabbat mode in our refrigerators soon.

Rabbi: Thank you for calling and have much success.

Answers to the questions:

- a. if the baby food is too hot
- b. 4
- c. 2
- d. 3
- e. if the clothes were dry
- f. the electronic setting is off
- g. 1

5. Let's Write! Have the students write a letter to the Institute of Science and Halacha asking for advice about a problem they have due to technology. They should write between 100-120 words in their notebooks. Encourage them to share their ideas.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this.

You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.

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8: Nanotechnology

1. Let's Talk! Have a class discussion around the questions and the pictures. Have the students say what they see and relate to the pictures in their discussion. Since this lesson is about nanotechnology, which may be a topic that is unknown to some of the students, when you get to question 2, if the students aren't familiar with nanotechnology, explain what it is using the following information:

"Nanotechnology means technology using the smallest parts of the elements, such as the molecules of carbon to create stronger and more efficient products. From the Merriam Webster Dictionary: the manipulation of materials on an atomic or molecular scale especially to build microscopic devices (such as robots)."

2. a. Have the students circle the word that does not have the same meaning as the word in bold.

Answers:

- | | |
|--------------|----------------|
| 1. location | 5. negative |
| 2. huge | 6. usually |
| 3. safety | 7. prohibition |
| 4. favorably | |

2. b. Have the students choose the correct meaning for the words in bold.

Answers:

- | | |
|------|------|
| 1. a | 5. b |
| 2. a | 6. a |
| 3. b | 7. a |
| 4. b | |

3. a. Have the students complete the passage using the words in the word bank.

Answers:

- | | |
|------------------|------------------|
| 1. extensively | 5. measurement |
| 2. promising | 6. approximately |
| 3. exceptionally | 7. tiny |
| 4. width | 8. implications |

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3. b. Have the students place the sentences in the correct column. They may not fully comprehend the notions, but this is a good opportunity to expose them to some of the information on nanotechnology.

Note: Explain that nanotubes are tiny tubes made out of carbon and a nanometer close to the size of a molecule

Reasons to use nanotechnology	Reasons not to use nanotechnology	Neutral Information
3. Nanotubes are very promising, because they makes items that are strong.	5. Some people think that there are risks in using nanotechnology.	1. A nanometer is so tiny that it is approximately the size of a molecule.
4. Because of its benefits, many companies are using nanotubes extensively in production.	7. No one knows the implications of using massive amounts of nanotubes.	2. Through nanotechnology, it is possible to work with molecules of various elements.
6. Nanotechnology is good for the environment because it can multiply the power of solar heaters.		

4. Read the text with the students. Discuss what type of text this is and what we can expect to find in it. Ask them to look at the title and think about what they might learn.

It's recommended that you read and discuss the context so that the text is understood by all

the students. See example in TG, page iii, [Working with a Text](#).

Ask questions while reading to ensure comprehension.

Read the Tip with the class explaining how to understand difficult words through context.

*Information taken from: the world of nanotechnology -
<https://www.zdnet.com/article/5-surprising-uses-for-carbon-nanotubes/> ,*

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5. Have the students answer the questions according to the article in Exercise 4, in their notebooks.

Answers:

- a. 3
- b. ... *an element which can become stronger and easier to work with by using nanotechnology.*
- c. *It will be able multiply the amount of solar energy that is produced in the world / It will be easier to clean the pollution in rivers and seas.*
- d. 1
- e. Any one of the following: *The implications of nanotechnology have not properly been studied/ We do not know how massive use of nanotubes will affect our surroundings/ No one knows how large number of nanotubes in the sea will affect the water or the fish/ There are many questions about the safety of its use.*
- f. *(..... stopping / that governments stop) the development of nanotechnology until there are serious studies of its consequences.*
- g. 4

6. Let's Write! Have the students write an opinion, in a letter form, about the use of nanotechnology. Remind them that they can choose to write for or against nanotechnology even if they do not have an opinion on the topic. Also, remind them not to copy sentences from the article, but they can use some of its words.

They should write between 120-140 words in their notebooks. Encourage them to share their letters.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this.

You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.

NOTE: This writing task is an introduction to the next lesson, in which each student must write an opinion paper about the use of technology.

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9: Technology – Good or Not?

1. Let's Talk! Group work. Divide the students into groups of three. Have each group discuss the questions presented in their books.

Each group should then present the most important points they discussed. This should lead to a class discussion.

2. Have the students match the questions and their answers.

- | | |
|------|------|
| 1. e | 4. b |
| 2. a | 5. c |
| 3. f | 6. d |

3. Have the students complete the sentences in a logical manner using the vocabulary that was learned in the unit. Explain that the sentences they write could and might be used in an essay they will write later on. Encourage them to share their sentences.

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4. Let's Talk! Group Work. Have the students work in small groups to discuss the issue of technology and the technological revolution. They should discuss the advantages and disadvantages of each aspect they bring up, as well as how to overcome the difficulties. Walk around the classroom to see if any group needs help, and to remind them to talk in English.

5. Let's Write! Have the students write an opinion essay, presenting both sides. They are to write between 120-140 words in their notebooks. They can make use of the information they wrote about and discussed in the group work task in Exercise 4.

Review the use of connectors in the **Tip Box** and the outline for the organization of the essay.

You can use the [Writing Templates](#) on page iv in the TG to help you teach and review this. You can use the [Writing Rubrics](#) on page v in the TG to help you grade this.